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ABSTRACT

Four articles comprise this issue of the bulletin. "The Situation of Teachers in the English-Speaking Caribbean" (A. B. Alleyne) examines the position of Caribbean teachers with respect to salaries, social security, the teacher shortage, the adequacy of educational objectives and policies, preparation for the profession, and further education. "The Illiteracy in the Group of the 8: Implementation of a Program of Experiences Exchange" (Ministry of Education, Peru) proposes areas of cooperation between the eight countries of the Acapulco Agreement (Mexico, Peru, Argentina, Uruguay, Brazil, Panama, Colombia, and Venezuela) in their efforts to eradicate illiteracy by the year 2000. "The State and Education in Latin America" (J. Casassus) identifies and discusses some of the issues regarding the link between education and the state in Latin America. "Towards a Mathematics Education Thinking: Contributions of Chilean Research at the Basic and Middle Levels" (P. Montero; H. Gonzalez) presents an overview of Chilean mathematics education at its basic and middle levels, and urges the development of a national thinking in the field. The final part of the bulletin contains information about the activities that the Regional Office for Education in Latin America and the Caribbean has carried out in the region. (JB)

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ED348249

bulletin

THE MAJOR PROJECT IN THE FIELD OF EDUCATION

In The Latin American and Caribbean Region

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The Major Project
in the Field of Education in Latin America and the Caribbean
has resulted from a consensus
on the part of government representatives
of the countries of the region
concerning the necessity
for a renewed, intensive and sustained effort
to make good deficiencies and to meet
unsatisfied basic educational needs
between now and the year 2000
as a prerequisite for the development
of the those countries
in line with objectives shared by all
and by means of actions in which
each country's own effort
may be benefited
by horizontal, subregional, regional
and international co-operation.

THE MAJOR PROJECT IN THE FIELD OF EDUCATION
In Latin America and the Caribbean

SUMMARY

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BULLETIN 17

Santiago, Chile, December 1988

In order that this bulletin
may reflect in as complete and timely manner as possible
the initiatives and activities carried out
by each and all the countries of the region
in relation to the Major Project in the Field of
Education in the Latin America and Caribbean Region,
pertinent official bodies are invited
to send to
the Unesco Regional Office for Education in
Latin America and the Caribbean
all information they wish
to have published in this bulletin.

The publication of this bulletin has been made possible by the voluntary contribution of the Spanish Government to the activities of the Major Project in the Field of Education in Latin America and the Caribbean.

The views expressed in the signed articles are those of their authors, and are not necessarily shared by UNESCO.
Reprint of this publication is authorized mentioning its source.

PRESENTATION

The integration of educational experiences is being more and more a reality, in the countries of the region due to the States' political decision in order to fulfil the Major Project's objectives.

Therefore, in the Group of the 8 last meeting (Argentina, Brazil, Colombia, Mexico, Panama, Peru, Uruguay and Venezuela) held in Montevideo, the Ministry of Education of Peru put forward a work aimed at performing the interchange of this kind of experiences. In this way, a new step of the Acapulco Agreement, signed by the Presidents of those 8 nations in november 1987 is fulfiled, in which they committed themselves to "foment the interchange of experiences in literacy and in the different teaching levels".

This work, which is published in this issue, poses the worry by the damage of primary school quality and the increasing eventuality of the reversibility to illiteracy even in a children and young population which has had 3 or 4 years of schooling.

The following article proposes a reflection about the identification and exam of some subjects expressing the relations between State and education. The subject considers a wide, complex and multidimensional field, whose analysis allows the author to state that the mentioned relation should not be discussed.

Teachers are main elements in educational processes. By this reason a summary of works carried out by Elsa Leo-Rhynie, Kinton K. King and Albert B. Alleyne regarding the status of teachers in English-speaking Caribbean are presented. This material constitutes a useful information for the other countries of the region teachers.

Lastly, a research performed by Patricio Montero and Hernán González aimed to contribute to the development of some reflections concerning mathematics education is included. The study has to do with chilean environment, but its outcomes may be useful far from the chilean frontiers.

As it is usual, the final part of this bulletin informs the readers about the activities that the Regional Office for Education in Latin America and the Caribbean has carried out in the region's countries.

THE SITUATION OF TEACHERS IN THE ENGLISH-SPEAKING CARIBBEAN

Albert B. Alleyne

Under the sponsorship of Unesco, a Seminar on the "Status of Teachers" was held in Kingston, Jamaica, during September 1988, in which the situation of teachers in the English-speaking Caribbean was reviewed.

Part of what was analyzed in this event is comprised in the papers presented here.

The Recommendation concerning the Status of Teachers was adopted in 1966 by a Special Intergovernmental Conference convened by Unesco, which considered the draft prepared by a joint ILO/UNESCO Committee of Experts and based on the observations received from States and teachers' organisations.

Conventions and Recommendations are instruments which establish minimum international standards and of the two, Recommendations are less binding. Nevertheless, a Recommendation is "communicated to all Members for their consideration with a view to effect being given to it by national legislation or otherwise". Periodically, member states of the ILO and UNESCO are requested to report on progress of application of the Recommendation within their borders.

The purpose of this seminar is linked to the periodic progress reporting and immediately arise two fundamental issues, which the workshop may wish to consider. The first is that standards have a cost and impact on the public purse. What are the implications of this on small, relatively poor countries like Caribbean states? Have they made calculations as to what the implementing of the standard is going to cost? Did they make appropriate representations when the standards were being drafted and debated for adoption? Cultural, religious, social and political implications may also be very important and need to be given due consideration.

The second fundamental issue has to do with the method of implementation of the Recommendation, i.e., by "national legislation or otherwise". Whereas it is relatively easy to legislate for and to verify the attainment of provisions like the establishment of:

- Free teacher-preparation institutions with teacher-preparation programmes as specified;
- avenues for advancement and promotion;
- security of tenure;
- machinery to deal with disciplinary matters and equitable safeguards at each stage of the disciplinary procedure;
- free medical examinations for teachers;
- creches and nurseries for children of teachers;
- part-time service with pension;
- academic freedom for teachers;
- insurance for teachers against risk of claims by injured students;
- free exercise of civic rights, including eligibility for public office with preservation of seniority, etc.;
- machinery for settlement of disputes;
- appropriate class sizes and hours of work;
- ancillary staff positions;
- annual vacation leave, study leave, special leave, sick leave, maternity leave;
- properly maintained school buildings of appropriate design and furnishing;
- appropriate salary structure;
- appropriate social security, including medical care, sickness benefit, employment injury benefit, old-age benefit, invalidity benefit, survivors' benefit.

It is not similarly as easy to legislate for and verify that teachers are living up to their responsibilities, and to ensure that they are so

doing. After all is said and done, the pay-off for adequate teacher status is adequate student learning and the experience of most countries of the world is that the latter is not an automatic consequence of the former. Perhaps a more holistic approach needs to be sought.

Salaries, Social Security, Teacher Shortage(*)

This paper examines the status of Caribbean teachers in respect of specific clauses of the International Recommendation for the improvement of this status developed in 1966 and discussed in the 1984 ILO/UNESCO Joint Commentaries (1). The special clauses for consideration are covered in chapters X, XI and XII of the 1984 Commentaries, and address the following:

- Teachers' salaries
- Social security
- Teacher shortage

Data were obtained from eight Caribbean territories viz: Jamaica, Trinidad and Tobago, Antigua, St. Kitts, St. Lucia, Dominica, Guyana and Belize. A questionnaire was designed to elicit the required information, and written responses were received from teachers, principals and/or representatives of teachers' organisations. In some instances, interviews were held with respondents.

It is difficult to report a Caribbean position in respect of the areas under consideration, as the territories operate as independent units, and so vary in terms of the provisions made for teachers, and thus, the status of these teachers. An attempt is made, however, to record the positions of these territories relative to the 1966 Recommendation.

Teachers' Salaries

The importance of teachers' emoluments in the status accorded this profession is stressed in paragraph 114 of the 1966 Recommendation which states:

"Amongst the various factors which affect the status of teachers, particular importance should be attached to salary, seeing that in present world conditions other factors, such as the standing or regard accorded them and the level of appreciation of the importance of their function, are largely dependent –as in other comparable professions– on the economic position in which they are placed".

A range of factors is used in the determination of teachers' salaries. These include:

Governments' ability to pay

This has, necessarily, to be a major consideration. In situations where public and private schools co-exist, salaries of teachers in private institutions tend to be guided by the government rate. The government in question may be operating with certain constraints regarding salary increases: in the case of Jamaica, for example, a current wage guideline limits the level of salary increase which can be offered.

Teachers' qualifications and experience

These factors determine the salary paid in all territories, and are the important criteria for both academic and technical/vocational teachers, although practical training and experience are also taken into account in setting salaries of non-academic technical/vocational teachers in Jamaica, St. Kitts and Antigua.

Level at which the teacher is employed

In some territories: Belize, St. Kitts, Antigua, St. Lucia and Trinidad and Tobago, the level at which the person is teaching affects the salary received. Teachers working at the secondary level are better paid than those employed in primary level schools. This practice would seem to create an "injustice" or "anomaly" which could give rise to friction between different groups of teachers.

Recommendation 123 advises that salary scales for teachers should be periodically reviewed so as to allow these scales to keep pace with increased costs, and also that teachers' organisations be involved in this review as well as in the choice of Cost of Living index consulted. Most Caribbean respondents expressed the view that Cost of Living indices are considered when salary reviews are underway, but there is not necessarily any direct relationship between cost of living increases, and the salary increases granted.

Territorial data on various aspects of teachers' salaries discussed in the Recommendations are summarised in Table 1.

The variations in policy from territory to territory are clear. It is particularly noteworthy that, in practically every instance, private sector workers with similar qualifications earn more than teachers; and in Dominica, St. Lucia, Belize and Guyana, their public sector counterparts also enjoy better salaries than teachers. The recommendation that teachers'

(*) Elsa Leo-Rhynie, Ph.D. 1988.

(1) The Status of Teachers: an instrument for its improvement: the International Recommendation of 1966. Joint commentaries by the ILO and UNESCO 1984. International Labour Office, Geneva.

Table 1
Territorial data on various aspects of teachers' salaries

Aspect	Jamaica	Dominica	Belize	St. Kitts	Antigua	St. Lucia	Guyana	Trinidad
1. Frecuency of salary review	2 yrs	5 yrs approx.	No fixed period	4-5 yrs	3 yrs	3 yrs	2-3 yrs	3 yrs
2. Time taken to move from minimum to maximum of scale	4-12 yrs	Fixed salaries	15 yrs approx.	3-5 yrs	3-5 yrs	10 yrs approx.	7 yrs	Fixed salaries
3. Increments given for service performed during								
(a) probation	No	No	Yes	No	No	No	Yes	No
(b) temporary appointment	Yes	No	Yes	No	No	No	Yes	No
4. Comparison of salary scales of (a) temporary and permanently employed teachers	Same	Same	Same	Same	Same	Same	Temp. lower Part-time higher	Same
(b) Teachers with those of persons of similar college or university training in								
–public sector	Same	Lower	Lower	Higher	Higher	Lower	Lower	Same
–private sector	Lower	Lower	Lower	Lower	Same	Lower	Lower	Lower
5. Increments given for attainment of higher educational qualification	Max. 3 Increments	None	Max. 2 Increments	1 Increment	1 Increment	Increment or Promot.	1 Increment	None

salaries should compare favourably with those paid in other occupations requiring similar or equivalent qualifications is not met in most instances. In Antigua and St. Kitts, teachers earn higher salaries than their public sector counterparts; Antiguan teachers earn salaries similar to those of their private sector colleagues.

Salaries in all territories are paid regularly throughout the year. Such salaries have been fixed since 1986 in Trinidad and Tobago, and since 1987 in Dominica. This means that increments are not granted as is the case in the other territories and as is advised in paragraph 122 of the Recommendation. Guyana teachers receive an annual across-the-board increment of 5%, as well as an additional annual increment (maximum 5%) based on performance during the previous year. It is not clear how this merit-rating system is administered, and whether or not teachers' organisations were involved in its establishment and accept its use. Increments are only granted to teachers on probation or those temporarily employed in Belize and Guyana. Jamaican teachers on temporary appointment do receive increments.

There is general compliance with the recommendations in paragraph 116, in that:

a. Teachers' organisations are usually involved in salary negotiations and determi-

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nation. In Dominica, teachers are classified as civil servants, and they are represented by the Civil Service Association, which is the union for all public officers there.

b. Salary scales for teachers employed temporarily are, in all save one case, the same as those for their permanently employed counterparts. The one case, Guyana, pays its temporary teachers at a lower level than its permanent staff; where teachers are employed on a part-time basis, however, they are paid at a higher rate.

Contrary to the Recommendation in paragraph 122, however, teachers are not, in all cases, granted increments for service performed during probation and temporary appointment.

The payment of additional sums for special responsibilities is shown in Table 2.

No additional payment is made for teacher involvement in extra curricular activities, for extra hours worked on a single shift, nor in some cases, for duties carried out as head of department.

This is in contravention of paragraph 118 of the Recommendation which indicates that:

Where a maximum number of class contact hours is laid down, a teacher whose regular schedule exceeds the normal maximum should receive additional remuneration on an approved scale.

Persons working on a second shift are, however, paid additional wages. Salary increases are not paid to teachers from Dominica or Trinidad and Tobago on the attainment of higher educational qualifications, although this is the practice in other territories.

An assessment of the adequacy of the salary paid to teachers was also made, and although judgement of adequacy is highly subjective, the opinions of respondents, given in Table 3 are revealing.

Although no territory considered that salaries were adequate to meet all the conditions outlined in paragraph 155(c) of the Recommendation, teachers' salaries are perceived as being totally inadequate even for self support, in Jamaica and Guyana. Responses from only three territories indicated that teachers' salaries permitted enjoyment of a reasonable standard of living, and a respondent from one of these territories substituted the word "tolerable" for "reasonable" on the questionnaire. In none of the territories did salaries allow for investment in further education.

Social Security

In all the territories except St. Lucia, teachers are protected by social security, such protection resulting from a government scheme which is compulsory for all workers in the public, and in some instances, private sectors. This satisfies the general provision made in paragraph 125 with regard to the enjoyment, by all teachers, of the same or similar social security protection. The Schemes do not expressly address the special characteristics of the teaching profession, and the needs which emanate from these, as advised in paragraphs 127-140 of the Recommendation.

The extent to which teachers in the different territories are protected by social security measures in respect of the contingencies included in the ILO Social Security (Minimum Standards) Convention, 1952, are shown in Table 4.

Table 2
Payment of additional sums to Caribbean teachers for extra duties

Duties	Jamaica	Dominica	Belize	St. Kitts	Antigua	St. Lucia	Guyana	Trinidad
1. Head of Department	Yes	Yes	No	No	Yes	No	Yes	No
2. Extra-curricular activities	No	No	No	No	No	No	No	No
3. Working extra hours								
– same shift	No	No	No	No	No	No	No	No
– second shift	Yes	N/A	N/A	N/A	N/A	Yes	N/A	Yes
4. Comparison of additional payment to basic salary rate	Lower	Allowance	–	–	Lower	Higher	Higher	Same

N/A = Not applicable

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Table 3
Assessment of the adequacy of salaries paid to teachers

Adequacy of Salary for:	Jamaica	Dominica	Belize	St. Kitts	Antigua	St. Lucia	Guyana	Trinidad
1. Support of teacher	No	Yes	Yes	Yes	Yes	Yes	No	Yes
2. Support of teacher and family	No	Yes	No	No	No	Yes	No	No
3. Investment in additional education	No	No	No	No	No	No	No	No
4. Attendance, participation in cultural activities	No	Yes	No	No	No	Yes	No	Yes
5. Enjoyment of a "reasonable" standard of living	No	Yes	No	No	No	Yes	No	Yes

There was uncertainty as to just what benefits existed in St. Kitts, Antigua and Guyana. It seems clear, however, that Caribbean teachers are not protected by social security measures for all the contingencies named. The situation is similar to that noted in 1979 by the ILO and referred to in the 1984 commentaries i.e., the coverage is mainly for old age and sickness, and least for unemployment and family responsibilities. Trinidad and Tobago is the only territory where an unemployment benefit is paid, but old age benefit is not offered there. Sickness benefit is only paid in Dominica; in the other territories it is available only as sick leave –a part of the terms and conditions of employment. The benefits which exist in each territory are available to teachers

- on probation
- on temporary appointment (all territories except Dominica);
- in different type schools (not available in Dominica to teachers in private schools);
- on leave and undergoing training (all territories except Trinidad and Tobago).

Specially established health schemes for teachers are operated in Jamaica, St. Kitts, Antigua and St. Lucia. This practice satisfies the Recommendation in paragraph 139 which advises the establishment of special schemes where no general scheme for a particular contingency is in place. The "follow-on" recommendation regarding the involvement of teachers' organisations in the administration of the special or supplementary schemes is practiced in St. Lucia only, where the Teachers' Union administers the health scheme.

Employment injury benefit is available to teachers in Jamaica, Belize, St. Kitts and Antigua. This benefit is provided for injuries suffered while carrying out teaching and associated duties, whether on shool premises or not, and thus fulfills the requirement of paragraph 130 of the Recommendation. It seems unlikely, however, that such a benefit is paid for illness resulting from infectious diseases contracted as a result of teacher contact with pupils (paragraph 131 of the Recommendation).

Paragraph 128 advises that teachers in rural or remot areas where medical facilities are scarce, and who have to travel to seek medical aid, should have access to a travel allowance for this purpose. Such an allowance is not available in any of the territories.

Pension/Old Age Benefits are, in all cases, transferable to new teaching posts as well as to other jobs, although in several instances the transfer is limited to jobs within the public service.

In all instances, the formula used for calculating the pension teachers should receive takes into account their years of service as well as the highest salary earned (this is usually the salary at the time of retirement). In St. Lucia and Trinidad and Tobago, as recommended in paragraph 133, retired teachers who continue to work can receive a supplementary pension; in Jamaica, Dominica and Belize, this is not the case, neither are the additional years of service counted in the pension award. This pension is separate and apart from the Old Age Benefit received from the national social security scheme. Respondents from St. Lucia, Dominica and Trinidad and Tobago were of the opinion that the pensions teachers receive would allow them to maintain an adequate living standard, in keeping with paragraph 134 of the Recommendation. The inadequacy of

Table 4
Territorial data on Social Security measures available

Social Security Measures	Jamaica	Dominica	Belize	St. Kitts	Antigua	St. Lucia	Guyana	Trinidad
1. Medical Care Benefit	Yes	No	No	?	?	No	Yes	No
2. Sickness Benefit	No	No	No	?	?	No	?	No
3. Unemployment Benefit	No	No		?	?	No	No	Yes
4. Old Age Benefit	Yes	Yes	Yes	Yes	Yes	No	?	No
5. Employment Injury Benefit	Yes	No	Yes	Yes	Yes	No	?	No
6. Family Benefit	No	No	No	?	?	No	?	No
7. Maternity Benefit	No	Yes	Yes	?	?	No	Yes	Yes
8. Invalidity Benefit	No	No	Yes	?	?	No	?	Yes
9. Survivors' Benefit	No	Yes	Yes	?	?	No	?	Yes
Employment Injury Benefit available for								
1. Injuries suffered during teaching	Yes	No	Yes	Yes	Yes	–	?	No
2. Injuries obtained during school activities away from school	Yes	No	Yes	Yes	Yes	–	?	No
3. Infectious diseases arising from contact with students	No	No	?	?	?	–	?	No

? = Uncertain

pension to provide a reasonable living standard for Jamaican, Belizean and Guyanese teachers was emphatically noted by respondents from these territories.

Teacher Shortage

The balance between teacher supply and demand also varies in the Caribbean. Respondents from Trinidad and Tobago and Dominica indicate that they have no shortage of teachers; indeed supply has always exceeded demand. The other territories have experienced shortages, however, and have had to develop strategies to deal with this problem. Increasing the workload of available teachers has been one such strategy, and increasing class size is another. St. Kitts and Antigua note the use, in their territories, of Voluntary Service Officers, as temporary teachers.

With the exception of St. Kitts and Antigua, short term teacher training programmes have been used in all territories experiencing shortages. The extent to which such programmes comply with the guidelines of the Recommendation, is indicated in Table 5.

The short-term teacher training programmes implemented by the territories are, in all cases, considered to be fully professional and extensive, and trainees selected meet the criteria for admission to the normal professional programme in all, save St. Lucia. In Jamaica, a special preliminary programme prepares prospective teachers to meet these criteria.

Arrangements exist in Jamaica, Belize and St. Lucia for teachers undergoing such special training to fully qualify themselves while in-service, but Jamaica is the only territory which makes this a condition of continued employment. Teachers in St. Lucia and Guyana who undergo short-term training work with, and are closely supervised by professionally qualified teachers: this is not the case in Jamaica and Belize.

Conclusion

The factors examined above –teacher's salaries, social security and the strategies used for handling teacher shortage– are pivotal ones in determining the status which teachers in any country enjoy. If teachers' salaries in the Caribbean "reflect the importance to society of the teaching function", then it is clear that this function is seen as being relatively unimportant. In the majority of cases, salaries:

Table 5
Characteristics of short-term teacher training programmes implemented during teacher shortage

Programme Characteristics	Jamaica	Dominica*	Belize	St. Kitts*	Antigua*	St. Lucia	Guyana	Trinidad
1. Fully professional and extensive	Yes	-	Yes	-	-	Yes	Yes	-
2. Entry qualifications are at least equivalent to those required for the normal programme	Yes	-	Yes	-	-	No	Yes	-
3. Arrangements e.g. study leave with pay, enable in-service completion of qualifications	Yes	-	Yes	-	-	Yes	No	-
4. Unqualified teachers are closely supervised and directed by professionally qualified teachers	No	-	No	-	-	Yes	Yes	-
5. It is a condition of continued employment that trainees complete the full professional programme	Yes	-	No	-	-	No	No	-

* No short term programmes used.

- do not "compare favourably with salaries paid in other occupations requiring similar or equivalent qualifications";
- do not "provide teachers with the means to ensure a reasonable standard of living for themselves and their families, as well as to invest in further education or in the pursuit of cultural activities, thus enhancing their professional qualification".

In the case of social security, the 1984 commentary noted that "the objective pursued in paragraph 126 is an ambitious one" and in the developing countries of the Caribbean, it is easy to agree with this comment. The objective does provide, however, a standard which can serve as a goal towards which governments, policy makers, teachers and teachers' organisations can work. The lack of knowledge with regard to benefits available evidenced among respondents –qualified and experienced persons in the field of education– as well as the absence of sickness, medical care, invalidity and unemployment benefits in a number of territories, point to areas requiring attention.

The maintenance of quality and a high degree of professionalism which are key contributors to the status teachers enjoy in society, depend largely on the education and training available to this professional group. It is particularly important that in periods of emergency and shortage, the standards outlined in paragraphs 142, 143 and 144 be imposed and sustained.

In the Caribbean, as well as elsewhere, the statement offered in paragraph 145 is highly relevant and needs to be constantly borne in mind if the teaching profession is to gain and hold the status it should: This statement reads:

> "Authorities should recognise that improvements in the social and economic status of teachers, their living and working conditions, their terms of employment and their career prospects are the best means of overcoming any existing shortage of competent and experienced teachers, and of attracting to and retaining in the teaching profession substantial numbers of fully qualified persons".

In this regard, the Status of Teachers document can serve a valuable function in providing a framework from which authorities can gain an awareness of the international standard governing the status of the teaching profession and thus work towards attaining or surpassing this standard in the Caribbean.

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Objectives, policies, preparation and further education (*)

In an effort to obtain data for this paper, a questionnaire was sent by mail to the following Ministries of Education:

Antigua
Barbados
Dominica
Grenada
Jamaica
St. Kitts-Nevis
St. Lucia
St. Vincent and the Grenadines
Trinidad and Tobago

Questionnaires were also sent to Teachers' Unions in some of these territories so that their feeling as to the adequacy of educational objectives and policies, preparation for the profession and further education for teachers could be determined.

The questionnaire was formulated using the ILO/UNESCO Booklet on the "Status of Teachers".

The percentage response was 70%, which is considered satisfactory, bearing in mind the very short time given for the completion of the questionnaire.

This paper, then, represents a distillation of data and ideas received from the respondents listed above.

Educational objectives and policies (1)

10. Appropriate measures should be taken in each country to the extent necessary to formulate comprehensive educational policies consistent with the Guiding Principles, drawing on all available resources, human and otherwise. In so doing, the competent authorities should take account of the consequences for teachers of the following principles and objectives:

(a) It is the fundamental right of every child to be provided with the fullest possible educational opportunities; due attention should be paid to children requiring special educational treatment.

All countries have educational institutions geared towards providing children with opportunities for learning from nursery up to secondary. In most countries the State runs the bulk of education at all levels, either directly or indirectly. For example, at the nursery and secondary levels there are still some privately-owned institutions (mostly denominational) but they offer the same curriculum as government-owned schools, and invariably all or a large percentage of the teachers are paid by the government.

The government insists on certain rigid conditions under which all schools must be run. These conditions usually are part of the Education Act and Regulations which undergo constant review and modernization.

There is a variety of statements of educational objectives and policies which bear striking resemblance to one another. Generally speaking these statements may be summarized as follows:

- Effecting the personal, social, cultural, moral and aesthetic development of all citizens.
- Meeting the manpower needs of societies that are becoming more and more scientifically and technologically advanced.
- Ensuring equal opportunity for learning to all.
- Enhancing the efficiency and effectiveness of individuals and organizations.
- Ensuring the development of a better-qualified teaching service, both quantitatively and qualitatively.

(b) All facilities should be made available equally to enable every person to enjoy his right to education without discrimination on grounds of sex, race, colour, religion, political opinion, national or social origin, or economic condition.

All institutions and facilities-whether government-owned, government-assisted or privately owned-are made available to all persons without any discrimination on grounds of sex, race, colour, religion or otherwise. It is interesting to note that in many Caribbean countries there are more girls at the primary level, a larger percentage pass the 11+ examination and many more stay throughout the period of secondary education.

(c) Since education is a service of fundamental importance in the general public interest, it should be recognized as a responsibility of the State, which should provide an adequate network of schools, free education in these schools and material assistance to needy pupils; this should not be construed so as to interfere with the

(*) Kinston K. King. University of the West Indies, Faculty of Education. Cave Hill, Barbados.

(1) The original numbers of the Recommendations concerning the Status of Teachers, and approved by the Special Intergovernmental Conference, 1986, are maintained.

liberty of the parents to choose for their children schools other than those established by the State, or so as to interfere with the liberty of individuals and bodies to establish and direct educational institutions which conform to such minimum educational standards as may be laid down or approved by the State.

At the nursery level, except in a few countries where governments have become involved, pupils must pay to attend. In the majority of cases relatively high fees prevent some pupils from benefiting from such education. Some governments have established day-care centres to facilitate working parents but, by and large, these do not perform the same functions as nursery schools.

Education in all government-owned and government-assisted primary schools is free in all countries. Assistance in the form of educational materials, subsidized transport, and nutritional sustenance is given to needy pupils, In some countries there is a well-developed school-meals programme in all schools. In other countries these programmes are in their infancy.

At the secondary level the picture is much more varied. The overwhelming majority of government-owned secondary schools are free, as far as tuition is concerned. Government-assisted and privately-owned secondary school usually charge a fee. In some countries, the State sets a ceiling on the fees charged; in others, there is no such practice. The burden of costs in most countries is in the form of purchase of textbooks. These are very costly, and only in a few countries any textbook lending-scheme exists. In these fortunate few, pupils are charged a rental fee for the use of the books. Needy cases are treated in a variety of ways –some externally-funded agencies, some local business concerns, and some government assistance.

All teacher-training colleges for primary teachers are free. Generally speaking, these are in-service and teachers continue to get salaries during the period of training. Books and other accesories are bought by student-teachers. In some countries, there are arrangements whereby the money for books is advanced to the individual and then repayment is done by deductions from salaries. In one country, there is a move afoot to extend the textbook lending-scheme to the college.

(d) Since education is an essential factor in economic growth, educational planning should form an integral part of total economic and social planning undertaken to improve living conditions.

All countries have Central Planning Units which handle economic and development planning, and some educational planning. In some Ministries of Education there is an educational planning-unit but the number of staff employed in this area vary from one to twenty-four. The latter is the case in Jamaica.

Functions of these units are more or less standard, i.e., to initiate and coordinate the formulation of education plans, programmes and projects in accordance with educational policy. These units, from the beginning, would have been involved in the formulation of the educational policy

(e) Since education is a continuous process, the various branches of the teaching service should be so co-ordinated as both to improve the quality of education for all pupils and to enhance the status of teachers.

As regards co-ordination of the various branches of the teaching service, countries are at various stages along the road towards more effective and efficient co-ordination. In some cases, closer co-ordination is slow because of widely differing terms and conditions of service at the various levels. In some cases, the lack of proper co-ordination stems from a difference in development (historically) in the various branches of the teaching service, where one branch developed at the expense of the others. As a result, it seems that some branches are more prestigious than others.

The signs of efforts to redress imbalances and foster better co-ordination are commendable.

(f) There should be free access to a flexible system of schools, properly inter-related, so that nothing restricts the opportunities for each child to progress to any level in any type of education.

At the moment, there is little or no flexibility in the school-system which would allow each child to progress to any level in any type of education. All countries report restrictions wich vary in severity.

(g) As an educational objective, no State should be satisfied with mere quantity, but should seek also to improve quality.

As already stated, all countries view the production of more and better qualified teachers and pupils as a very important objective of education.

(h) In education, both long-term and short-term

Table 1

Percentage of Untrained Teachers in the Commonwealth Caribbean Education Systems

Country	% Untrained Teachers	
	Primary	Secondary
Jamaica (1983)	27	36
Barbados (1984)	.01	19
Trinidad & Tobago	N/A	11
Guyana		
Anguilla (1984)	36	50
Antigua & Barbuda (1983)	33	86
Dominica (1984)	49	49
Grenada (1983)	67	81
Montserrat (1983)	51	36
St. Kitts/Nevis (1984)	28	43
St. Lucia (1984)	56	43
San Vincent & The Grenadines	65	76
Belize	N/A	66

1. Figures were obtained from the UNESCO Major Sector Studies.
2. All of these figures should be viewed cautiously, particularly those for secondary teachers, as a specific definition of "trained" was not provided.
3. Percentages for Guyana were not available for the preparation of this report.

Source: Catherine Eddy Report, CIDA, 1981; as quoted in "Proposal for a Curriculum and Institutional Development Project". CXC/ACCC/CIDA 1985, p. 14.

planning and programming are necessary; the efficient integration in the community of today's pupils will depend more on future needs than on present requirements.

Some attempt is made to anticipate what pupils will require to survive in the twenty-first century. The emphasis on science and technology, technical/vocational studies are but two indicators of this thinking. There are serious limitations, however, as to how far these can in fact be implemented. High costs and embattled economies continue to make even the achievement of present-day goals extremely difficult. Educational planners and other Ministry of Education officials have shown awareness of the need to formulate long-term as well as short-term goals. The former, they strive to keep constantly in mind.

(i) *All educational planning should include at each stage early provision for the training, and the further training, of sufficient numbers of fully competent and qualified teachers of the country concerned, who are familiar with the life of their people and able to teach in the mother tongue.*

As an extension of the idea covered in (g) the educational plans of each country include provision for training and further training of teachers. The teaching profession suffers, however, from many problems.

First of all, the effort to establish a fully-trained teaching force is thwarted by rapid turnover, no doubt engendered by relatively low salaries and poor conditions of service. As a result, in many countries the annual output of graduates from teacher-training institutions hardly fills the gaps left by qualified teachers leaving the system.

The strategies now used in teacher-training seem incapable of raising the quantity and quality of graduates needed in the system. Attempts at in-service (out-of-college) training have failed by-and-large, because of a lack of support mechanisms and personnel in the schools, able and willing to act as partners with the college-staff in the training process.

The figures in Table 1, though somewhat dated, illustrate the point very clearly.

Attempts to provide adequate training is further frustrated by the presence in the system of a large percentage of teachers which do not have the minimum qualifications for entry into training institutions. Table 2 gives the situation as it exists in four of the smaller countries:

Table 2

Percentage of Teachers without entry-requirements to training institutions

Country	%
A	21.9
B	55.7
C	44.6
D	55.5

Plans are being formulated with the promise of external funding, to bring a larger percentage of the teaching force to the basic entry-requirements by use of distance education techniques. A few countries have initiated programmes for such "mass upgrading" but the problem is very large indeed.

(j) Coordinated systematic and continuing research and action in the field of teacher-preparation and in-service training are essential, including, at the international level, co-operative projects and the exchange of research findings.

Except in the larger countries, there is no co-ordinated, systematic and continuing research and action in teacher-preparation and in-service training. Even in those countries opinions are divided as to whether what exists is adequate.

In the smaller countries –the Non-Campus Countries (NCC)–, lack of sufficient staff both quantitatively and qualitatively prevents such research from taking place. Some educators do carry out small-scale research, especially at the various teacher-preparation institutions, but generally these are inadequate to provide suggested solutions to the large, deep-seated problems encountered in the system. In some cases, the Faculty of Education at the UWI provide assistance in these areas.

(k) There should be close co-operation between the competent authorities, organisations of teachers, of employers and workers, and of parents, as well as cultural organizations and institutions of learning and research, for the purpose of defining educational policy and its precise objectives.

In most countries the definition of educational policy does not include active participation of teachers' organizations, employers and workers, parents etc. Where there is participation, it is on a very limited basis and normally does not include all the parties named above. This co-operation is absolutely vital if educational objectives and policy are to be meaningful and should enhance the implementation of them in the system at large.

(l) As the achievement of the aims and objectives of education largely depends on the financial means made available to it, high priority should be given, in all countries, to setting aside, within the national budgets, an adequate proportion of the national income for the development of education.

The problem of lack of finance is a very large one. All respondents seem to think that the amounts set aside for the education sector is inadequate.

The percentage of the national budget set aside for the education sector ranges from 14.8% to 23%, with an average of 17.8%. Of this amount, a large percentage is spent on teachers' salaries and emoluments ranging from 66.4% to 84.3%. In many cases very little is available for the on-going development of education.

Preparation for the profession

11. Policy governing entry into preparation for teaching should rest on the need to provide society with an adequate supply of teachers who possess the necessary moral, intellectual and physical qualities and who have the required professional knowledge and skills.

All countries have a minimum entry qualification for entry into the teaching service. However, these minimum qualifications vary from country to country. Usually a prospective teacher needs to possess four CXC or GCE passes or equivalent, with English Language compulsory in some countries.

Due to a variety of circumstances, persons are allowed to enter without the minimum stated qualifications, in some cases with only one or two. The chief reason for the lowering of standards is the inability of secondary schools to produce enough graduates for the job-market, for further study and so on. In any case the teaching profession is not a high-status one.

In the vast majority of countries the minimum entry requirements are strictly adhered to for a person to enter teacher-training institutions. The result of this is, as outlined in Table 2, that there are persons in the system for many years who do not have formal teacher-training.

In the case of the secondary level the picture is equally varied. In some countries persons are recruited to 0- or A- level, usually

in the subject area that they are required to teach. As far as university graduates are concerned, some teach without any professional training (Dip. Ed., Cert. Ed. or equivalent), while others teach at this level having only been trained for teaching at the primary level. In fact, until recently, not much emphasis was placed on graduates to receive professional training. This latter practice is gradually being phased out.

The NCCs find themselves in a difficult position in this regard, since training of this sort can cause disruption in their systems in key subject areas. Invariably the teacher must come to a Campus Country for training and the NCC must bear costs for the trainee and also for a substitute teacher. Campus countries are more fortunate in that all three have special government-funded programmes for the purpose. In any case, programmes are in-service and the services of the teacher is not lost from his/her school. Plans for in-country training of graduate secondary teachers have been drawn up, but finance has prevented implementation.

12. *To meet this need, educational authorities should provide adequate inducements to prepare for teaching and sufficient places in appropriate institutions.*

All countries have some system of inducement for teachers to enter the profession and to become qualified. These inducements take various forms e.g., salary increments, teacher scholarships and bursaries, study-leave with pay, free training for teachers.

Places in training institutions are adequate in most countries, bearing in mind that only a percentage of the total teaching service have necessary qualifications for entry. Some countries e.g., Barbados, Trinidad and Tobago, Jamaica, St. Kitts-Nevis have teaching forces that are almost fully-trained. This is especially true at the primary level. Plans are afoot for their institutions to perform other types of roles.

13. *Completion of an approved course in an appropriate teacher-preparation institution should be required of all persons entering the profession.*

14. *Admission to teacher-preparation should be based on the completion of appropriate secondary education, and the evidence of the possession of personal qualities, likely to help the persons concerned to become worthy members of the profession.*

All countries have one teacher-training institution for the training of teachers for the primary level, except Jamaica, where the number is 12.

In recent times these institutions have begun the training of junior-secondary teachers (or first three forms of secondary schools: 11-14 age-range).

Formal training to graduate teachers at the secondary level is done at universities –both regional and extra-regional.

The general feeling is that countries do not have sufficient institutions, and opportunities for training/re-training of their teaching force. The exceptions are in cases where the teaching force is relatively small and mechanisms have already been set in place for accelerated training.

All primary teachers, with the appropriate entry-qualification, on graduation for the teacher-training institutions are awarded certificates from the University of the West Indies. There is one exception, Trinidad and Tobago, where the certification comes from the Ministry of Education.

In cases where persons do not have the entry requirements, a country may opt to issue a "Local Certificate". This latter usually has validity only in that particular country.

The length and pattern of teacher-training programmes vary from country to country. In Jamaica it is three years full-time, while in the remainder of the region it is two years full-time or one year full-time, one year part-time.

Training at the primary level is generally in-service, meaning that persons entering the institution may have been teaching from two to several years. In Jamaica there is a pre-service programme. At the moment, all secondary training (graduates) is in-service.

15. *While the general standards for admission to teacher-preparation should be maintained, persons who may lack some of the formal academic requirements for admission, but who possess valuable experience, particularly in technical and vocational fields, may be admitted.*

Long-serving teachers without appropriate qualifications are either trained and awarded local/country certification, or not trained at all. In a few countries these persons are given general upgrading from time-to-time, when finance permits.

16. *Adequate grants or financial assistance should be available to students preparing for teaching, to enable them to follow the courses provided and to live decently; as far as possible, the competent authorities should seek to establish a system of free teacher-preparation institutions.*

17. *Information concerning the opportunities and the grants or financial assistance for teacher-preparation should be readily available to students and other persons who may wish to prepare for teaching.*

All teacher-programmes and institutions are free. Where these are residential, the accommodation is either free or provided at a nominal cost.

18. *Fair consideration should be given to the value of teacher-preparation programmes completed in other countries as establishing in whole or in part the right to practise teaching.*
Steps should be taken with a view to achieving international recognition of teaching-credentials conferring professional status in terms of standards agreed to internationally.

All persons with entry-qualifications on successfully completing a teacher-preparation/ training course, receive certificates that are recognized regionally and internationally. As already stated, in the majority of cases this certificate would be issued by the University of the West Indies.

The certificate may also be used to assist in the fulfillment of matriculation requirements for entry into degree programmes at the UWI.

Teacher preparation programmes

19. *The purpose of a teacher-preparation programme should be to develop in each student his general education and personal culture, his ability to teach and educate others, an awareness of the principles which underlie good human relations within and across national boundaries, and a sense of responsibility to contribute both by teaching and by example to social, cultural and economic progress.*

When asked to rate purposes of teacher-preparation on a 5-point scale, all respondents rated the following as important or very important:

To develop:
- his general education and personal culture;
- his ability to teach and educate others;
- an awareness of the principles that underlie good human relations, within and across national boundaries;
- a sense of responsibility to contribute both by teaching and example to social, cultural and economic progress.

A few other purposes were added to the list by the respondents. These include:
- an awareness of national goals for education and a teaching-style compatible with them;
- a commitment to teaching and education;
- towards personal development of the teacher.

Fundamentally, a teacher-preparation programme should include:
- general studies;
- study of the main elements of philosophy, psychology, sociology as applied to education, the theory and history of education and of comparative education, experimental pedagogy, school administration and methods of teaching the various subjects;
- studies related to the student's intended field of teaching;
- practice in teaching and in conducting extra-curricular activites under the guidance of fully qualified teachers.

21. *All teachers should be prepared in general, special and pedagogical subjects in universities, or in institutions on a level comparable to universities, or else in special institutions for the preparation of teachers.*
The content of teacher-preparation programmes may reasonably vary according to the tasks the teachers are required to perform in different types of schools, such as establishments for handicapped children or technical and vocational schools; in the latter case, the programmes might include some practical experience to be acquired in industry, commerce or agriculture.

A typical teacher-preparation programme for primary teachers consists of the following:

Required courses

• Education Theory • English Language • Mathematics • Science • Social Studies • Teaching Practice • Individual Study.

Optional courses

Academic Subjects

• Economics • French • Spanish • Geography • Health Science • History • Religious Knowledge • English Literature, including West Indian Literature • Any other subject approved by the UWI School of Education.

Practical Subjects

• Agricultural Science • Art • Crafts

• Home Economics • Industrial Arts • Music • Physical Education • Any other subject approved by the UWI School of Education.

Pass Requirements

To obtain a UWI School of Education Certificate, candidates must pass in the following jointly assessed subjects in Eastern Caribbean Teachers' College Final Year Examinations:

A. Teaching Practice, Education Theory, English Language, Individual Study, in at least *one* of which the grade must be *not less than C;*
B. In the following jointly assessed subjects in Group B: Mathematics, Science, Social Studies, in at least *one* of which the grade must be *not less than C.*
C. And in one subject (practical or academic) from the programme of internally assessed optional subjects.

A typical teacher-preparation programme for Junior Secondary teachers (age range 11-14) consists of the following:

Course of study

The course of study will include:
- Foundations of Education
- Use of English
- Social Issues
- Two specialist subjects –chosen from the subjects in the secondary curriculum
- Teaching Practice
- Individual Study
- One optional subject.

Pass Requirements

Secondary School Teachers

To obtain a UWI School of Education Certificate, candidates must pass in the following jointly and/or internally assessed subjects: Teaching Practice, Education Theory, Use of English, in at least *one* of which the grade must be *not less than C.*

Individual Study, Two Specialist Subjects, Social Issues, with at least a C-grade in *one* of the specialist subjects.

For secondary teachers (graduate) the main course of training at the UWI is the Diploma in Education. Although there are small differences from Campus to Campus, the general pattern is as follows:

The programme for the award of a Diploma in Education is intended to be completed over one academic year of full-time study, and includes a period of teaching practice (normally not less than 8 weeks) in schools or on field-work.

Programme content

The programme for the Diploma in Education has five elements:
- General Education Theory courses ("Foundation courses").
- A course in the principles and methods of teaching one subject normally at the secondary level ("Teaching subject course").
- Practical training in teaching ("Teaching practice").
- The Diploma Study.
- Special courses.

The following four Foundation courses are compulsory:
Psychology for Teachers
Philosophy of Education (Syllabus B)
Introduction to Curriculum Theory, Planning and Practice (Syllabus C)
Sociology of Education (Syllabus B).

Teaching subject courses offered include:
Biology
Chemistry and Physics
Mathematics
Geography
English
Modern Foreign Languages
History
Business Education Studies and Technical Education Studies
Social Studies.

Practical training in teaching:
This covers planning curriculum units, lesson preparation and lesson presentation. Early in the programme there will be opportunities for group teaching practice and/or micro-teaching sessions. Students will be placed in schools for a minimum of eight weeks, during which time they will be regularly visited by subject tutors for observation, and, during the latter part of the practice period, for assessment purposes.

The Diploma Study:
This will be undertaken under the guidance of the subject tutor. Detailed guidelines are provided below.

Special Courses:
The following courses are compulsory:
- Classroom Testing and Evaluation
- Educational Technology.

One other must be selected from:
- Logic and the Teaching of Reasoning
- Introduction to Guidance and Counselling
- Introduction to Educational Administration. (Syllabus A).

Guidelines for the study

Students are required to do a Study in order

to give them some initial experience of, and practice in, conducting and inquiry into a topic of their own choice related to the teaching of a particular subject. Normally, this will be:

- a teaching procedure, or
- the construction and use of certain teaching material, or
- the design of a syllabus and the teaching of some part of it.

The Study must show the result of wide reading in relation to a subject and an appreciation of the implications for teaching suggested by the results of the investigation. It is primarily a learning exercise, and only secondly a means of judging professional competence. It should involve approaching a significant educational problem in a systematic way, and coming to valid conclusions on the basis of the evidence collected and other experiences.

22. *A teacher-preparation programme may provide for a professional course either concurrently with or subsequent to a course of personal academic or specialised education or skill cultivation.*

As shown above, the teacher-preparation programme provides for a profe-ssional course which runs concurrently with a course of personal academic development.

23. *Education for teaching should normally be full-time; special arrangements may be made for older entrants to the profession and persons in other exceptional categories to undertake all or part of their course on a part-time basis, on condition that the content of such courses and the standards of attainment are on the same level as those of the full-time courses.*

Most programmes are full-time. Workshops and seminars and short intensive courses are also provided for older teachers, both trained and untrained.

24. *Consideration should be given to the desirability of providing for the education of different types of teachers, whether primary, secondary, technical, specialist or vocational teachers, in institutions organically related or geographically adjacent to one another.*

Although it is not always possible to have partner-institutions in teacher-preparation physically near to each other, there are many examples of organically related institutions offering joint programmes, especially in the training of technical/vocational teachers. Certain specialist areas also get support from other institutions in the country and from industry.

25. *The staff of teacher-preparation institutions should be qualified to teach in their own discipline at a level equivalent to that of higher education. The staff teaching pedagogical subjects should have had the experience of teaching in schools and wherever possible should have this experience periodically refreshed by secondment to teaching duties in schools.*

There has been tremendous improvement in the qualifications of the staff of teacher-preparation institutions. Generally speaking, they have the necessary academic and pedagogical expertise to handle their subject areas. This has been due in large measure to a concerted, deliberate effort on the part of various governments. Training awards are sought for teacher-preparation staff assiduously. The effort is even more remarkable when one considers the rapid turnover rate that many subject areas experience.

As regards the idea of periodic refresher secondments to teaching duties in schools, this seems to be not very widespread. All countries, however, accept the principle as being very desirable.

26. *Research and experimentation in education and in the teaching of particular subjects should be promoted through the provision of research facilities in teacher-preparation institutions and research work by their staff and students. All staff concerned with teacher education should be aware of the findings of research in the field with which they are concerned, and endeavour to pass on the results to students.*

In the overwhelming majority of cases there are inadequate research facilities available in teacher-preparation institutions. In a few cases such capability is non-existent.

27. *Students, as well as staff, should have the opportunity of expressing their views on the arrangements governing the life, work and discipline of a teacher-preparation institution.*

All teacher-preparation institutions have mechanisms in place to provide opportunities for staff and students to express their views on the running of them. The level of such participation ranges from inadequate to very inadequate, with well-established student-councils on one end of the spectrum and ad hoc, periodic dialogue, on the other.

Many students feel that they should be afforded more opportunities to impact upon institutional directions.

28. *Teacher-preparation institutions should form a focus of development in the education service, both keeping schools abreast of the results of research and methodological progress, and reflecting in their own work the experience of schools and teachers.*

The link between teacher-preparation and schools is usually satisfactory. There is, however, room for more qualitative contacts e.g., in the sharing of research findings and methodological progress. All teacher-preparation institutions have a very close organic relationship with schools, especially those that are geographically nearby.

29. *The teacher-preparation institutions should, either separately or jointly, and in collaboration with another institution of higher education or with the competent education authorities, or not, be responsible for certifying that the student has satisfactorily completed the course.*

30. *School authorities, in co-operation with teacher-preparation institutions, should take appropriate measures to provide the newly-trained teachers with an employment in keeping with their preparation and individual wishes and circumstances.*

All teacher-preparation institutions for training primary teachers in the Eastern Caribbean and Jamaica receive certification for students from the University of the West Indies. In Trinidad and Tobago certification is by the Ministry of Education.

At the secondary level of training, the certification comes from the UWI or some equivalent extra-regional institution.

Every effort is made to set up links of co-operation between teacher-preparation institutions and schools to ensure that the teachers' strengths are fully-used on the job.

Further education for teachers

31. *Authorities and teachers should recognize the importance of in-service education, designed to secure a systematic improvement of the quality and content of education and of teaching techniques.*

In-service courses have the following purposes:

- Upgrading teacher competencies so as to improve pupil performance
- Initial training/orientation of teachers
- Upgrading pedagogical skills, subject content and skills in testing and evaluation
- For professional development.

However, these in-service education activities are barely adequate in most countries. In many it is woefully inadequate.

32. *Authorities, in consultation with teachers' organizations, should promote the establishment of a wide system of in-service education, available free to all teachers. Such a system should provide a variety of arrangements and should involve the participation of teacher-preparation institutions, scientific and cultural institutions, and teachers' organizations. Refresher courses should be provided, especially for teachers returning to teaching after a break in service.*

Refresher courses, where available, take the form of workshops/seminars and other courses of short duration. In most countries, these are not as frequent as they should be.

33. *Courses and other appropriate facilities should be so designed as to enable teachers to improve their qualifications, to alter or enlarge the scope or their work or seek promotion and to keep up to date with their subject and field of education as regards both content and method.*
Measures should be taken to make books and other material available to teachers to improve their general education and professional qualifications.

All countries but one offer courses to allow teachers to improve their qualifications, and to alter or enlarge the scope of their work.

Rewards vary from increased remuneration to certificates of attendance only, depending on the course.

The availability of books and other study materials to improve teachers' general and professional qualifications is still a problem. High costs of such books and the limited finance available to the education sector contrive to make this idea laudable but distant. The present position is that books are scarce or barely adequate.

34. *Teachers should be given both the opportunities and the incentives to participate in courses and facilities and should take full advantage of them.*

35. *School authorities should make every endeavour to ensure that schools can apply relevant research findings, both in the subjects of study and in teaching methods.*

Table 3

Further Education Awards to Teachers, 1984-1988

Country	Year	UWI	CAST	Other Regional Institutions	Extra Regional	Total	% of Country Awards
A	1984	1	1	1	8	11	13.3
	1985	1	–	–	8	8	50.0
	1986	7	–	6	7	20	26.6
	1987	2	2	3	9	16	30.1
	*1988	3	–	–	–	3	100
B	1984	7	2	18	–	27	22.5
	1985	8	2	10	–	20	17.2
	1986	13	2	15	–	30	18.6
	1987	8	6	50	–	64	29.7
	*1988	6	5	7	–	18	9.5
C	1984	7	3	3	3	16	40
	1985	4	3	3	3	13	54
	1986	11	2	2	3	18	43
	1987	5	1	6	4	16	33
	*1988	3	3	1	11	18	43

*Figures for 1988 may be incomplete.

36. Authorities should encourage and, as far as possible, assist teachers to travel in their own country and abroad, either in groups or individually, with a view to their further education.

Some upgrading courses are mounted locally, others are tenable at regional institutions like UWI and CAST.

Non-Campus countries face the same problems here as those mentioned in Nº 11 above. There is a strain on the system when persons, especially the qualified ones, are released for overseas upgrading.

In every respect, successful completion of upgrading courses is rewarded by increments and/or additional status.

Despite the many problems faced by Non-Campus Countries, every effort is made to give overseas awards to teachers for further training. Table 3 gives the picture in a sample of these countries.

37. It would be desirable that measures taken for the preparation and further education of teachers should be developed and supplemented by financial and technical co-operation, on an international or regional basis.

This is considered a very important idea. In many countries such co-operation is already evident, but much more needs to be done.

Two comments on the state of teacher-preparation and the teaching service in two particular countries encapsulate the condition in the whole region.

The first comment is from a Union representative:

"Teacher-preparation has gained much attention since (Independence) through an increased numbers being trained; and upgrading of the programme.

But because of low remuneration and poor conditions of service, many teachers have left and are leaving the system for more lucrative jobs."

The second comes from a Ministry of Education:

"In spite of very commendable efforts of the Ministry of Education, the inadequacy of financial resources makes the efforts less effective than we would like.

"Teachers who return from college-training find difficulty in acquiring opportunities for further training after six years or more after their training college experience.

Better salary attraction makes it more lucrative or profitable for teachers to leave for occupations in the private sector".

THE ILLITERACY IN THE GROUP OF THE 8

Implementation of a program of experiences exchange

Ministry of Education. Peru

The present work was elaborated to be presented at the Meeting of the Group of the 8 (Mexico, Peru, Argentina, Uruguay, Brazil, Panama, Colombia and Venezuela), held in Montevideo, Uruguay, last November.

This document was conceived in the frame of the Acapulco Agreement that was signed by the Presidents of these 8 countries on November 29th, 1987, with the purpose of making the exchange of experiences in this field.

This decision remained clearly set up when in the paragraph 56 of the above mentioned agreement it is indicated: "We have agreed, in the educational field, to promote the exchanges of our experiences on the subject of literacy, and in the different levels of teaching. In the same way, to increase joint experiences in areas such as investigation, educational training of human resources and the editorial production."

Since the approval of the Acapulco Agreement, in November 1987, a series of consultations at technicians and Chancellory level among the governments of the 8 signatory countries, which have emphasized the subject of educational and cultural cooperation, have been performed. In that frame, they have determined to specify better how the exchange of experiences –as regarding literacy and adult education– could work, on the eve of the year 2000, with the purpose of giving a substantial help to the aim of eradicating illiteracy in the countries that participate in the Acapulco Group.

This concern agrees with the course that has had the subject of illiteracy and the new educational perspectives opened by adult education, popular education, permanent education during the last years, both in the international and regional extent. Only to mention the nearest records, both the Major Project in the field of Education for Latin America promoted by UNESCO and the Educational Development Program of the OAS, have emphasized the need of proposing urgent time limits which at mobilizing the efforts already determined by the countries, succeed in overcoming illiteracy in the Region, in a lapse not exceeding the horizon of the year 2000.

As a result of this generalized uneasiness illiteracy is considered today as a problem that goes beyond the educational frame, that determines, but also delays democratization of Latin American societies, and that minimizes even more the possibilities of development of extensive human and social conglomerates of the Region.

There is consensus in recognizing the important expansion of the Latin American educational systems in the last two decades, that has meant a massive extension of the basic education coverage and a general raising of the schooling average of the population in its entirety. It is also remarkable the interest to promote literacy campaigns and institutionalize agencies in charge of facing illiteracy with the cooperation of social sectors under very different strategies and alternatives.

Nevertheless, persistence of illiteracy goes on being alarming. According to UNESCO figures of 1985 the number of illiterates on the world was estimated in 889 millions (27.7% of the world adult population); 328 millions were men and 561 millions, women. Latin America contributed with 43 millions 600 thousands illiterates, that is to say, 5% of the world total. Nine countries (India, China, Pakistan, Bangladesh, Nigeria, Indonesia, Brazil, Egypt, Iran) represented 75.2% of the whole of world illiterates, and more than 23 countries of Latin America had more than one million of illiterates (see Table 1). On the average, the Region had a rate of illiteracy of 17.3% (in 1970 it was of

27.3%) and it is estimated that in the year 2000 this rate could represent a 10.4%. In absolute terms, the number of illiterates kept steady between 1980 and 1985: from 44 millions 300 thousand it passed to 43 millions 600 thousand but the number of literate adults was almost doubled from 119 millions in 1970 to 209 millions in 1985.

Always considering 1985 and dividing Latin America in subregions (Bolivia, Brazil, Colombia, Ecuador, French Guyana, Guyana, Paraguay) it is noticed that Tropical South America (Peru, Suriname and Venezuela) shelter the largest number of inhabitants and also the largest number of illiterates; from 253 millions of adults in the Region, 138 live in Tropical South America, and there we have around 27 millions of illiterates (19 millions of which belong to Brazil).

In Middle America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama) there are 11 millions of illiterates of which 4.4 millions belong to Mexico. In the Caribbean, the illiterates sum 4.4 millions and almost half of them belong to Haiti. In Temperate South America, (Argentina, Uruguay, Chile) there is a reduced number of illiterates: 1.6 millions. Only Mexico and Brazil, because of their greater demographic weight gather the greater number of illiterates of the region: 53.9%.

The former paragraph explains that the Group of the 8 represents an average rate of illiteracy of 11.4% in 1985 and that the whole number of illiterates (28.224) means a 64.72% of the whole illiterates of the Region, estimated, as it has been said, in about 43 millions 600 thousand people. As it is noticed in Table 2, inequality of conditions, from countries with a low index of illiteracy (Argentina, Uruguay), with a greater percentage of intermediate countries (Peru, Colombia, Venezuela, Panama) and two giants like Brazil and Mexico, makes it difficult to imagine a common strategy to face the problem of illiteracy, nevertheless, we could find methods and means of mutual convenience, as we will see later.

The reasons why it has been difficult to overcome the absolute number of illiterates of the region would demand a very wide and complex explanation, but it is certain that the prevailing factors have to deal with historical, socio-cultural and educational aspects. There were conglomerates of aboriginal populations, where country-city inequality is more emphatic, where man's position is remarkably better than that of woman, where connections of production and work are so backward that do not demand a greater skill of the labour force, illiteracy is persisting and it tends to perpetuate.

It is spoken, with good reason, because of that, of lagoons of retard, poverty, marginality and ethnic peculiarity as the main determinants for a more vigorous action concerning literacy. If there are not, in consequence, development policies in the areas of critical poverty and of substantial changes in the development models, country-city relations and the progressive participation of the population in such works, the struggle against illiteracy will hardly overcome the declarative level that frequently has surrounded it.

In the properly educative field, a correlative problem –universalization of basic education, or at least of the primary one– is the first aspect that explains persistence of illiteracy. Nevertheless, the great advances already mentioned in the school enrolment and in the educational opportunities of primary and basic level, it was yet estimated in 1985 that of the 66 millions of children in primary school age, 8.5 million, that is to say 13%, were out of school. According to UNESCO and by means of a sustained financial and administrative effort, in the year 2000, the Region could lower that index to a 8%, that is to say 6.7 millions of children without school. Complete schooling is one of the essential conditions to avoid the sprout and persistence of illiteracy, therefore, any systematical effort to face illiteracy has to take into account school, formal and conventional education, to guarantee the maximum covering of primary education and consistently reduce the high dropout and repetition rates that are still dramatically expressed in the primary school of the Region.

Finally, primary school is extensively poor in the Region, even if it is extended to latitudes where normally other agencies of social development do not arrive, especially in rural areas and spread out districts. This poverty has been accentuated as much by the global crisis of the national economies of the countries of the Region, as by behaviours of the educational expense that in the majority of the cases has privileged secondary and superior education and at the same time, increased in the last decades.

The deterioration of quality in primary school and the increasing eventuality of the reversibility to illiteracy even in a child and youthful mass that has had three or four years of schooling, make even bigger the problem of illiteracy, since they add new cultural needs that go from a service policy of the means of communication up to cultural offensives of press and editorials, reading groups, popular libraries assigned to give new and major opportunities of reading to the new readers and to a specific age group (17 to 25 years old) which, because of the nature still excluding of the formal system and because of survival needs, is faced to work without having

completed basic schooling. This panorama wants only to indicate that we are conscious, in speaking of eradication of illiteracy, of the multiplicity of problems and collateral aspects that it causes and that, definitively, it demands besides a firm political will of the governments –that is not exclusive of political parties nor of the triumphant tendencies in electoral periods and of democratic governments and of an increasing conscience and participation of the respective national societies.

In that sense, the governmental or official task, even if it is non renounceable, it deals with a constitutional mandate, requires of the mobilizing complement of civil society to engage in a vast literacy action. In fact, one of the characteristics of the educational reality of the region is the pronounced tendency of many institutions and organizations to approach social and educational actions that have in illiteracy one of the defining components. As much the church as non governmental organizations in some cases federations, labor unions, rural and urban peripheral base organizations, have got theorical, methodological and practical aims of the major importance in managing to connect the illiterate populations with development projects potentiating the educative component. Therefore, it is necessary to link both sides and shape common strategies that try an informal educational policy and a policy of use of mobilizing virtualities as much of the official sphere as of the civil society.

Definition of areas of possible cooperation between the 8 countries of the Acapulco Agreement

If these budgets are valid, that is to say, if it is accepted that there is a new horizon to sketch a common objective –eradication of illiteracy to the year 2000– it is necessary to define which are the problematic areas where concordant actions can be developed and an intensive horizontal co-operation can be established.

A preliminary analysis indicates that those critical areas are the following:

Institutionalization and financing of literacy and adult education

The accumulated experience shows that, independently of fixed term campaigns and mobilizations, it is necessary to create in each country a permanent and steady instance that in the medium and long term faces the problem of literacy, that connects it with a regular subsystem of adult education and that have the financial, educational and administrative means according to its objectives. In other words, one of the reasons that illiteracy remains in many of the countries of the Region is due to the lack of continuity, stability and autonomy in the institutions responsible for literacy, besides, conceived as a focal action not connected with the wider context of adult education.

The Presidential Meeting of Montevideo should consider, because of that, and as a starting point of the subject of literacy, the need of unifying, in the 8 countries, the institutions responsible for literacy, its boundary of multisectorial competence and the micro-regional and medium steps in which the official development agencies and the base organisms of the possible beneficiary population converge.

In that sense the experiences of the National Institute for Adult Education of Mexico (INEA) and of the National Foundation for Young Persons and Adults Education of Brazil (EDUCAR) could be illustrative and useful, because of the fact that they have had a trajectory that has been successively correcting mistakes and because of the opening to multiple modalities and innovations of special interest for the other countries of the Group of the 8.

The unifying objective of these institutions could facilitate a close horizontal cooperation for the definition of common strategies, participative methodologies, joint research, evaluation and systematization of programmes, that is to say, all that logistics of management that in many cases, under the understanding that literacy supposes informal educative actions, have not been conveniently considered.

Similar importance has the fact that the President of the Group of the 8 could define a consistent financial allowance to the actions of literacy and to the sub-system of adult education in the next 12 years that precede the year 2000. The variety of contexts and magnitude of illiteracy in the Group dissuade to determine a fixed percentage of the respective national budgets, addressed to literacy. But it is undeniable that an explicit statement to give enough funds to the engagement of eradication of illiteracy could allow to demonstrate the true political will and sponsor a greater cooperation of international organizations and of agencies of cooperation of the developed countries.

Literacy, Adult Education and Productive Process

In the past decades, the effects of the literacy campaigns showed the close analogy existing between illiteracy and misery, marginality and underdevelopment and how it is possible to speak of significant progress when literacy is connected to programmes and

actions of communal and local development.

Such an evidence becomes today more decisive, according to the frame of the economical crisis that affects more seriously the poorest sectors of the society, urged by concrete survival strategies in which literacy does not offer immediate improvements in its deficient life conditions.

The educational component is an strategical element in the actions of local and communal development and considered under that perspective, literacy appears as an element of mobilization to improve the economical and social environment for the organization and the commitment of base communities and to establish new relationships between the modern sector and the depressed zones or regions. It has, because of that, an extraordinary importance the fact that the joint literacy action of the Group of the 8 is framed within the programmes of development for rural and marginal urban areas, as much as for specific sectors of the population (ethnic groups, women, young persons, etc.) and that those experiences that have established a close relationship among productive processes, integrated development and educational actions of adults were employed profitably with the purpose of re-applying them in wider geographical and demographical dimensions.

Literacy and Intercultural Education

Among the many challenges that literacy supposes, perhaps the most outstanding is that through it the Latin American countries open the doors to an intercultural dialogue that will assert even more their own national identity; illiteracy in the Region is closely related to the ethnical and cultural aboriginal condition and in this way it expresses the assimmetrical reality in the cultural relations of the majority of our countries that, frequently, have refused to accept the plural condition (linguistic and cultural) of their societies.

Statistics are eloquent: Colombia registered in 1980 413.570 native inhabitants that conform 77 native groups spread out in the territory. In Panama, 5.2% of the whole population, according to the census of 1980, that is to say, 94.045 people, corresponding to 4 aboriginal ethnic groups. In Venezuela the Indian census of 1985 reports 140.562 people belonging to 23 ethnic groups. Mexico has a population that comes near to the 8 millions of Indians, 12.21% of the whole population, with more than 30 ethnic groups. According to census of 1981, Peru had 24.81% of Indian population, with more than 50 ethnic groups, which in figures represents more than 3.5 millions of indigenous. The educational deficits of these populations surpass largely the national average illiteracy rate, the same as the figures of incomplete schooling (see table 3).

Although in the majority of the cases of the Group of the 8, institutions for the protection and development of native populations have been created, in general the literacy programmes were addressed to the "hispanicization" of such groups, causing serious interferences in the learning process, and at the same time, sponsoring a severe mutilation of a rich and multiple anthropological and cultural common property. Summing up, these policies did not allow to improve the educational level nor the harmonious integration of those populations to the respective national societies.

As an alternative to the compulsory hispanicization, there are several tendencies that today give support to intercultural bilingual educational programmes, being specially outstanding the Mexican policy that represents a solid source of innovations, studies, methodologies and materials at the disposal of the other countries of the Group of the 8.

Education and specially literacy in native populations have to recover several centuries of abandon, ignorance and clandestinity of the own culture. There is a deplorable empty space and delay in the field of historical, cultural, ethnoscientific, ethnolinguistic, ethnopedagogic investigation, which are the basis for the recuperation of more than one hundred vital projects of frustrated native groups, because of the unequal development of our respective national societies. This is a work line that the Montevideo Presidential meeting must revalue helping the formulation and performance of multinational projects for the unification of the writing and alphabet systems of the dialects of each one of the common native languages without making differences of countries, also addressed to the production of dictionaries and grammars. The carrying out of international events and the support to institutions that as the Indigenous Inter-American Institute have been developing important activities about the matter, also would be basic to unify points of view regarding education and literacy of native populations, policies, strategies, methodologies, materials and tutorship of specialists in the headquarters of the literacy programmes, etc.

Children and young people literacy

It has already been mentioned the close connection between persistence of illiteracy and precarious conditions of primary school. In Brazil, for instance, universality of primary school is refered to as children literacy, and in general the problem of literacy is represented

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as a priority line of basic school, without age distinction, that is to say, non being centered itself only in adults, but mainly in children and young persons. This criterion helps us to indicate that beyond reliable campaigns and programmes to eradicate illiteracy, what we must guarantee is an increasing improvement of primary school and its coverage, making it agree with literacy and integrated education actions.

Unlike the decade of the seventies, strongly critical of the role of school, today there is a consensus concerning primary school as a mobilization agent of local communities, and almost in general it is the only existing institution in the vast and scattered geography of our countries where illiteracy dwells.

In this same reflection line, primary school, besides, can perform a protagonic role in teaching and laboral training, authentic pre-vocational school where child is trained in tasks closely connected with cycles and productive forms of communal and district fields of activity. In that sense, the Argentinian experience can be an important background in the possible lines of co-operation in the Group of the 8 addressed to revitalize and re-formulate the role of primary school, as a solid support to integral literacy.

Women Literacy

Woman position in our countries, marked in general by a genre discrimination and oppression, has determined correlatively high rates of feminine illiteracy. Last two decades reported a positive tendency to improve the feminine condition as much in educational as in labour and legal matters, and in the whole of the rights that are inherent to her in complete equality with man. Even more, the same women have mobilized revindicative and organization actions that are the base of many tasks of social development in terms of health, children's survival, population, feeding, etc.

This context indicates us the priority that the attention of woman has, within the literacy programmes, with the purpose of providing together with the learning of reading-writing and basic operations, a re-orientation of traditional behaviour in relation to life condition, familiar and social responsibility to generate her woman condition.

It is important the existence of an explicit definition in this matter, in the Presidential Meeting of Montevideo, promoting at the same time researches addressed to know the feminine universe and its specific problems that begin with characteristic skills, its domestic and communitary role, its vocabulary, forms of communication, etc., called to determine better the literacy and post-literacy programmes for women and their active presence in them.

Use and support of means of communication

There have been several attempts in our countries to profit the open resources and methodologies that means of communication provide, though still in limited dimensions, since as much the radio, television and press as graphic workshops, visual and photographic means have been preferably of the state. In fact, it deals with interesting society as a whole about the problem of illiteracy, creating a national mysticism to face it appealling to the cooperation of all the social areas and, finally, getting the support of the private sector in the area of social communication because of its proved effectiveness and because of the extent of its massive presence. The experience of Colombia, inviting radios and television channels to literate and post-literate can be an important antecedent, since in terms of costs and irradiation this is one of the most useful perspectives that should be practiced with the purpose of a relatively soon eradication of the problem of illiteracy.

It is true that there is still a long way to go through regarding to the imposition of communicative technologies in literacy and adult education, but in this field, the Group of the 8 should ask for international support and cooperation and try persuasive politics with the private means of communication, thinking that any literacy effort will result in a larger development of the communications and editorial industries.

It is equally imperative to shape reading incentivation programmes and enlargement of diffusion and circulation of books addressed to the new reader population, what is a deficiency in our countries.

This point has interest because it is possibly where major actions of horizontal cooperation can be developed, not any more with the purpose of enlarging theoretical scopes, but of developing practical actions and of supplying the effort of literacy, be through the interchange of technicians, the common production of materials for the use of groups of countries, or by generalizing innovative methods.

Training and further training of Teachers, Managers, Pioneers, and Leaders of Literacy and Adult Education

In spite of the national initiative to develop this educative specialty, the deficits of experts and guides in adult education and literacy are still pronounced.

Such a wide commitment as illiteracy eradication sets forth the need of proceeding to the massive training of such leaders. This work was commended to the Regional Literacy Center for Latin America and the Caribbean (CREFAL).

The Presidential Meeting of Montevideo should promote the commitment of revitalizing a common training and further training institution where, on account of doctrine and practice the human resources called to carry out the great task of literacy in our countries were provided, determining the exact needs and planifying the number of students in function of these for the next 12 years. This should be an auspicious form of objectifying the commitment of eradicating illiteracy.

Conclusions

The interest of the participating countries of the Acapulco Agreement in literacy takes place two years before the Declaration of the International Year of Literacy according to UNESCO's and ONU's agreement, and under the spirit of the Major Project of Education that the 8 countries adhered to and promised to carry out until the dividing date of the year 2000.

The question that emerges immediately is the following: What new elements adds the fact that it is not the Region in its entirety but a Group of 8 Latin American countries which are commited to develop an effective policy to overcome illiteracy?. The problem does not decrease because the governments concerned in this obligation are less, even more, it increases since among them appear the two that have the greatest percentage weight of illiteracy. The difference is based only on the intensity and degree with which this commitment is expressed in concrete and politically efficient actions, in the form in which resources are gathered, strategies are outlined and potencialities of the respective national societies are used. The other great difference starts from the democratic identity, from change in bilateral and multilateral relations that encourages to the 8 nations of the Group of Acapulco, and from the deepening of internal transformations that bring better conditions of social and economic life inside each one of these nations.

It is necessary and urgent to define a calendar of actions that, in the short-term, 1990 as limit, presents programmes, strengthens those already existing and institutionalizes common initiatives as to accelerate the rythm of the effort in the decade that goes from 1990 to the year 2000. The appointment to a meeting of national experts and directives that defines such a calendar is necessary immediately. From these already expressed points of view, there should emerge lines of cooperation among the 8 countries and bilateral lines in specific fields already mentioned.

Table 1

Illiteracy estimations in Latin America (1980-1985)
(23 countries of the region)

Country	1980		1985	
	Nº Illit. (thousands)	Illit. Rate %	Nº Illit. (thousands)	Illit. Rate %
Argentina	1 185	6.1	934	4.5
Bolivia	993	36.8	925	25.8
Brazil	18 717	26.0	17 284	20.1
Colombia	2 407	14.8	2 149	11.9
Costa Rica	–	–	103	6.4
Cuba	106	2.2	–	–
Chile	681	8.9	–	–
Ecuador	760	16.2	660	12.0
El Salvador	818	32.7	858	27.9
Guatemala	–	–	2 519	45.0
Guyana	–	–	25	4.1
Haiti	2 423	78.5	2 436	77.0
Honduras	594	43.1	940	40.5
Mexico	6 435	16.8	4 633	10.1
Nicaragua	186	13.0	–	–
Panama	157	14.4	157	11.8
Paraguay	219	12.5	253	11.8
Peru	1 735	17.4	1 800	15.2
Dominican Republic	1 519	31.4	893	22.7
Suriname	–	–	23	10.0
Trinidad/Tobago	35	5.1	36	3.9
Uruguay	125	6.1	101	4.5
Venezuela	1 319	15.3	1 416	13.1
TOTAL REGION (including 35 countries)	44 300	20.2	43 600	17.3

Source: UNESCO/OREALC SIRI 1988. Main Progress Indicators during Period 1981-1985.

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Table 2

Illiteracy estimations of the 8 countries of the Acapulco Agreement, 1980-1985

Country	1980		1985	
	Nº Illit. (thousands)	Illit. Rate. %	Nº Illit. (thousands)	Illit. Rate. %
Argentina	1 185	6.1	934	4.5
Uruguay	125	6.1	101	4.5
Brazil	18 737	26.0	17 284	20.1
Colombia	2 407	14.8	2 499	11.9
Venezuela	1 319	15.3	1 416	13.1
Peru	1 737	17.4	1 800	15.2
Panama	157	14.4	157	11.8
Mexico	6 435	16.8	4 033	10.1
TOTAL 8 COUNTRIES	32 102	13.3	28 224	11.4

Source: UNESCO/OREALC-SIRI 1988. Main Progress Indicators during Period 1981-85.

Table 3

Illiteracy and schooling of native population (compared to the whole population) (1970) in countries of the group of the 8

Country	Native population inside the whole population	Illiteracy (in %)		Without instruction	
		in the whole population	of native population	Total population	Native population
Argentina	1.5	7.1	46.21	12.7	51.48
Brazil	0.2	20.6		56.6	
Colombia	2.2	22.4	53.7	24.8	53.15
Mexico	12.4	23.7	79.43	41.06	63.02
Panama	6.8	20.6	78.7	23.4	74.9
Peru	36.8	26.3	79.8	37.9	
Uruguay (*)	-	-	-	-	-
Venezuela	1.5	22.9	80.0	37.0	

Source: OEA DAE, 1978
(*) Information not available.

THE STATE AND EDUCATION IN LATIN AMERICA

Juan Casassus (*)

This paper aims at identifying and examining some themes on the links between the State and Education.

The subject of the relations between State and Education covers such an extensive, complex and multidimensional field as are its components, having many more questions and problems than answers and solutions. Notwithstanding this, as a premise it should be made clear from the start that, on the one hand, the link of the State with education is not questioned as it is evident that the transformation of consciousness at the global level corresponds and is the function of an entity of a collective nature as is, in essence, the State. On the other hand, conceived from the standpoint of the impact of the States' action, it is a requested connection.

Considering three of the main elements which characterize a nation (economy, the scientific-technical and the educational levels) and which, therefore, should be the subject of action on the part of the State and given the process of transnationalization in a rapidly changing international context, it would seem the State can only play an inciting role within the economic sphere and one of promotion in the scientific-technical activity. However, as concerns the education sector, it seems that its national nature makes it a "captive" sector and therefore may be the subject of a willful action on the part of the State, with the possibility of exercising some sort of control over results.

Outcome of this action, in addition to that set forth by the system, may have a positive though somewhat mediatizing impact on the scientific-technical and economic spheres. It is precisely for this reason that the attention of decision makers is directed to this theme, which tends to be the focus of the current demands formulated to education.

Once again and this time stronger than two decades ago, in advanced industrialized countries, there is a firm conviction that the real wealth of nations lies in their peoples. Perception that education is the central element in the training of the human capital is thus strengthened and human resources as a most important production factor is revalued. Moreover, it is also believed that more than any other social sector, it is that of education which will have a major impact in the making of the XXI century society and that the place of a country or of a group of countries within the world context will depend on the results of decision makers during the forthcoming years in respect to the adjustments made within the field of education.

In advanced industrialized societies the education system is the focus of political debate and the concern of society. In this debate, emphasis is not so much on the criticism to the system, but rather on the concern over the analysis aimed at seeking the solutions to ensure its best operation. With this in mind, this paper will consider two subject areas: The first proposes examining some concepts and basic characteristics of the State in Latin America, its evolution and the role played by it; this will be undertaken from a standpoint having some relevance with the theme under consideration. The second, examines some significant features of the Latin American educational situation, with emphasis on those areas in which the State appears as playing a leading role, and taking into account the current economic crisis.

It should also be pointed out that what follows is a synthesis of the themes, which aims at the elaboration of some simple profiles to enable identifying and characterizing some of their relations.

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Excerpt from a lecture given by the author at the Educational Research Interdisciplinary Programme (PIIE), August 1988.

Lastly, it should be made clear that the reflections herewith expressed have been taken from readings (1) and they do not necessarily represent any position on the part of Unesco.

The State in Latin America

Reflection on the State has a long history characterized by various approaches, basically of a philosophical nature, which entails a perception of the State as a metaphysical and integrated entity. However, reflection has increasingly tended to become part of social science, in particular of economists, sociologists and political scientists. Therefore, it is no wonder that literature reflects a view of the State especially influenced by these disciplines, in which it appears as one more social sector –important, but one of many– or is envisaged from the standpoint of power. Only recently, attention has been focused on the State as an operational structure. That is, questioning "how does this apparatus function?".

Recognizing that there are different perceptions of the State and with a view to establishing a common language, it should be conceived as a manifold agent which expresses and is the outcome of the economic and social relations as well as of that of power inherent in a given society.

In its capacity as agent, the concept of State is envisaged, on the one hand, as a bureaucratic-administrative structure and, on the other, as a series of functions and powers of the different components of that body. In democratic republics these powers, *grosso modo*, pertain to functions on the establishment of a legislative and formal organization (Parliament), to the implementation of the contents of said organization (Executive –constituted by the government, but which differs from the State–), and to the determination on whether the actions undertaken within the society are in keeping with norms (Judicial System). All of which is accompanied by the monopoly of a repressive capacity.

Naturally, these global functions are exercised within the different sectors of the social activity, becoming more subtle and elaborated as society becomes more complex; therefore, in "modern" societies, the sphere in which the State exercises its influence and/or action increase. On its own dynamics, the State becomes a manifold agent.

To this manifold agent such assumed, characteristc as the following are attached:

- control of the external economic affairs in representation of society;
- unity and coherence among its different agents;
- technical-administrative and management capacity to implement programmes;
- autonomy to impose criteria in respect to the other agents of society and political and economic power.

The concrete modality adopted by the structure and functions of this manifold agent is in keeping with the way economic and social relations have been established in a given society. The specific form it adopts is, at the same time, a historic product –and, therefore, not stagnant– expressing the situation of the relations of power between the different social groups and classes and a configuration whose basic characteristics would tend to be strengthened through time due to the inertia of the institutions being established.

Dependence and duality

As concerns the creation of the State in Latin America, different authors note that contrary to the endogenous way of its establishment in Europe, in our countries the State has the peculiarity of having been constituted in terms of an external and at the same time internal relation.

On the one hand, the State was organized having regard to the need for relating itself with more dynamic hegemonic centres; first those in Spain, afterwards French and English and, still later, centres of the United States. This is done under the influence of the hegemonic modalities of social organization and economic production; specifically adopting the capitalist modality, whose main features are: a) the capital's private property; b) private management of enterprises; c) private appropriation of benefits; and, d) regulation of the economic process by the market.

The modality used by Latin American States to connect themselves with the Metropolis then gives rise to a peripheral relation with the centre, known in literature as the dependent capitalist State. However, it should be stressed that the State must not only adopt the capitalist production modality, but at the same time must assume one of legal organization similar to that of the State with which it relates, in order to conceive an effective organic linkage. By doing so, the depending State adopts organization forms proper of the Metropolis and tends, therefore,to design a structure which, based on economic

(1) This reflection is mainly based on documents elaborated by ECLAC as concerns the aspects related to the State, and on documents of J.C. Tedesco in regard to education. The financial figures are taken from the World Bank and educational statistics from Unesco publications. A list of bibliographic references is attached at the end of this paper.

predominance, may generate this peripheral centre articulation.

On the other hand, in the elaboration of the internal relation, the State imposes an organization of an oligarchical nature to a population group whose social and economic relations are of a pre-capitalist modality and which give rise to a State of a traditional type with political predominance.

We face, therefore, States which are organized from the very start in keeping with two different realities –external and internal–, each with different dynamics and needs.

And so, as the State belongs to only one specific geopolitical space, the dual reality in keeping with its constitution is transferred within the society, thus generating in it a sector of a "modern" –or formal– character connected with the Metropolis, and another of a "traditional" –or non-formal– nature, linked to the interior.

This dual expression of the State is of great importance to the theme under discussion as, on the one hand, if it is carried to the sphere of consciousness, it reflects the coexistence of different logics, of different ways of thinking, of varied systems of cultural value and, on the other hand, it also reflects the dual demands made to education: those proper of the formal modern sector and those of the non-formal traditional sector.

The Intervenient State

Another feature of the State in Latin America is that the civil society has tended from the start to request the State to involve itself when faced with critical situations. In this context, it should be noted that the manifestation of the State's intervention tends to characterize the State itself.

When the Latin American societies emerge as States after the wars of independence, at the outset of the XIX century, concern is rather over a series of problems connected with the priority of becoming really independent nations; therefore, the State played a leading role in the national integration task, both to ensure the territorial and economic integration within a model of external growth and of a liberal type, and to strengthen social integration to allow for vast population sectors to become members of the new independent society, as well as to transform them into citizens. It is the State-nation.

When Latin America is faced with the consequences of the crisis of 1929 and of the Second World War, State intervention is again necessary. However, this involvement was not only made to alleviate the effects of that crisis but also to change the economic development model, establishing a new substitute and industrialized mode, and to become a decisive agent in the industrial development. The State-nation is thus changed into the State-planner of a Keynesian type, which assumes responsibility for private sector shortfalls and provides goods and services the market is unable to produce. Nevertheless, it should be stressed that this new characteristic emerged without having solved the demands of national integration, especially those concerning social integration. Furthermore, as the State-nation leaves behind a partially integrated society, the Unified State leaves an incomplete industrialization, causing a significant sector of the population to be economically and socially excluded.

In the decade of the 70s, when Latin America faces the crisis –produced by successive petroleum shocks, by the exhaustion of the "inward" development model and, later on, by the external loan policy– the neo-liberal logic prevails in society, thus weakening the role of planner played by the State, confronted with the predominance of the privatization resource. As an outcome, a loss in its capacity to formulate and implement nationalist policies is noted, changing into a State of open support to the private sector; i.e., the creation of the subsidiary State.

In certain countries, this practice in which a neo-liberal logic prevails, is accompanied by the States' repressive manifestation. The planner-benefactor State, in this case, is replaced by the authoritarian-State.

It shoud be noted that the expression of the authoritarian State within a neo-liberal context as this one, means that it loses its power in the productive process, but mainly, it weakens as concerns its representability, due to the fact that important sectors cannot express or impose their views. In other words, the State-nation aspect is weakened due to a loss of legitimacy and of citizen participation.

In the present circumstances, the Latin American situation is particularly delicate and complex. In advanced industrialized countries, the crisis is characterized by recession, transnationalization, the re-adequacy of the productive mechanisms and of the international economic relations and by rapid technological change. In the region, together with the political changes addressed to democracy, there are processes of accelerated loss of the per capita income (in global terms –9% between 1980-1985), of an external loan representing a monetary flow towards the outside of 39 billion dollars in 1985, whereas in 1978 there was a net income of US$ 4.9 billions.

Adjustment policies, necessary to avoid further disadvantaged situations for development, have entailed a reduction of social

expenditure. For instance, in the field of education, in the period 1980-1985, the loss has been of approximately 24%.

The situation of crisis poses new challenges which, if one does adhere to the historical logic, there will be need for new State involvement. However, this time it is a weakened and unarticulated State, which must act within a context considered as "ungovernable" and which adopts different forms in the various countries; for example, due to the re-adequacy of political forces and to lengthy strikes; to the strengthening of multi-polarity and even to guerrilla or open war.

Strong States or Weak States?

If one is guided by the State experience of developed countries, be it a decentralized model of an Anglo-saxon type or a centralized model of the French type, we note that although the crises are similar to those of Latin America, they are faced once the demands of the preceding State have been met. Thus, for example, the State-benefactor emerges when in the State-nation national integration has been practically attained and the State starts managing a consensual institutional system made legitimate by the peoples. On the other hand, the State's power lies in the fact that it incorporates representations of different classes organized within a somewhat cooperative system, such as worker and employer trade-unions, financial groups and others. The "social agreement" of the civil society, based on real democracy, allows for different social actors, groups and organizations to become antagonistic within a system with shared regulations in which the State fulfills functions of control, thus providing the system greater stability.

As previously mentioned, in Latin America the State becomes an external relation in the economic field. The main characteristic of the peripheral State lies in that the basic issue of the economic decisions affecting it do not depend on it and, therefore, has limited autonomy in the formulation of policies, in decision making and in the control of the process. In addition, the possibility of overcoming this peripheral situation demands for the State to assume, in a synchronized, simultaneous and timely way, the tasks on integration and social, economic and institutional development. In a retrospective view, it seems clear that although the State assumes this heavy task, it lacks the economic and political capacity to attain it. In this respect, it is advisable to specify two aspects. The first is that although in the theoretic conception of the State a series of characteristics as those previously mentioned are attached to it:

- control of external economic relations;
- unity and coherence between the different State agents;
- autonomy faced with other agents of society and political and economic power to impose criteria;
- technical-administrative capacity and management capacity to implement programmes.

Analysis of the real operation of the apparatus shows that it was and still is very different in practice. The assumption has been that the State exercises its action as of these characteristics attached to it. However, more than a presumption, these characteristics are an objective difficult to achieve and not a starting point to action, to which consequences deriving from the unsolved problem of the State's hegemony must be added. In practice, the State apparatus is made up of more or less structured subsystems which, as a whole, do not provide the unity or coherence attributed to them. Because these subsystems are not consolidated, they are liable to be influenced by different groups –in the region known as the practice of the "clientelismo" (clientelism)– with divergent interests such as those found when changing an agrarian society into an industrial society. In addition, the State's action does not constitute a technical rationality –as a logic over society– but rather it is expressed by complicated processes of decision in which the political and technical criteria of private agents interlink, and by the interests proper of the bureaucratic apparatus.

The second aspect refers to the fact that if the State has had to assume the task of establishing the economic bases, in addition to the social, political and cultural bases, it is because the other private agents of economy and peripheral societies have not had the power to assume this task. The formulation of fundamental economic decisions at the level of the central countries, implies that at the peripheral level the private economic agents must adapt to central orientation with a time-lag and through a process of disorganization and permanent organization, which, among other effects, limits their possibility of settling as a hegemonic class, capable of elaborating and developing a significant historic project.

In a context of "weakness of the actors", as this process has been called, the State has had to extend and diversify structures in order to fulfil functions which in principle are not of its competence. Although the State seems to be overdimentioned as concerns the coverage of its action, this has not entailed an increase in its force nor in its executive power. On the contrary, it has rather resulted in a delay and weakening of its effective capacity.

A paradoxal situation is produced, as for

the State to gain greater force, it has had to make considerable efforts and, furthermore, it has had to transform itself into the first producer in order to create conditions for the strengthening of the private sector. Thus, a complex situation arises in which, as concerns the economic field, the weakening or reinforcement of the private sector entails weakening or strengthening of the public sector. In other words, this constitutes the background of the apparent clash between "nationalism" and "liberalism"; "statism" and "free enterprise"; where, it must be recognized, these struggles for supremacy rather reveal a dynamic articulation, in which the private sector may express –and frequently impose– to the State specific demands when there are sectoral imbalances within the State and between the State and the civil society.

In this context it should be stressed that this dynamics of economic growth in Latin America generates, as well, a process of concentration of the economic and social power and, therefore, of processes of exclusion of the development benefits of vast social groups which cannot or have no possibility of submitting their demands to the State, thus aggravating relations of the social conflict.

Some ideas to enable illustrating this paradox of the Latin American States have been briefly presented. On the one hand, explaining what might be called the weakness of the State in Latin America, considered by some as a structural weakness, and on the other, to stress the facts that the State has played and still plays a leading role, therefore of relative force, in the development strategies of our region. Hence, these strategies of the economic, political and social fields which could be articulated should do so envisaging the State as a central factor, and especially, with a certain conception of the type of State desired.

Within this framework, we will examine aspects of the situation of education in Latin America and of some of its connections with the State.

Political dimension of education

There are various levels by which to analyse the relations between State and Education. In a general level, it should be borne in mind that education has been paramount in guiding the general policies of the State. In the field of education (though not so in others) States opted for the French "model"; that is, establishment –towards the end of the XIX century– of a centralized system to which is assigned the political function of contributing to the construction of the nation by means of the twofold task of incorporating the population to the citizenship and forming this citizenship in accordance with the different social and economic positions of the individuals. The structure of the education system (and naturally the methods and contents) reflect a system of social reproduction operating through the social distribution of knowledge. The wide gross roots population is provided with the minimal elements to allow for the establishment of an homogeneous body of cultural contents (primary school) and then, progressively advance by the educational scale to training modalities which may enable carrying out the administrative tasks of the systems and, finally at the summit, to the training of elites and leaders of society and of the State apparatus.

The "sensibility" of the State to the political dimension seems to have been a permanent characteristic. Education, as a right, has expanded more rapidly than other services offered by the State (health, housing) and has responded more to the social demands than to the requirements, for example, of the production sector. During the period in which the State takes up a process for the promotion of industry, in conceptual terms, the "training of the citizen" is replaced by the "training of human resources"; however, in practice the education system responds only slightly to the development of contents linked to technology and to the productive apparatus.

Within the framework of the crisis initiated at the beginning of the 70s and at a somewhat specific level, we will examine the relations State-Education under three standpoints: coverage, quality and management.

Coverage: what the figures reveal

As concerns coverage, it should be borne in mind that during the decades of the 50s and 60s the States in Latin America made exceptional efforts to increase the education services at the primary level, so much so that it is estimated that during the mid 80s, practically all the States of the region stated having sufficient installed capacity to provide schooling to the primary school age children. According to official statistics available at Unesco, all –but four contries– register gross enrollment rates above 95%. This percentage includes a variation between 3 and 18% of enrollment in private institutions (with the exception of three countries). As concerns second grade, there is an important variation between the gross schooling rates as these fluctuate from 16% to 93%. The average percentage is 53%, that is, half the countries under consideration have rates above this percentage and, as concerns private education, it is estimated that at that level it fluctuates between 13 to 41%.

In terms of growth, the relative increase of enrollment, far from being constant, reveals a progressive deceleration in all its grades, as shown by the trend in the average rate of annual growth during the past fifteen years since 1970, that is:

Table 1

Grades	Average rate of annual enrollment growth, in the region (%)		
	1970-75	1975-80	1980-85
First	3.6	2.9	1.9
Second	10.6	6.9	5.2
Third	17.3	5.9	4.7
Total	5.2	3.8	2.8

This reduction in relative enrollment growth is explained, in part, by the high schooling rates already achieved by many of the countries under consideration, especially as concerns universal primary schooling.

Perhaps the most significant quantitative phenomenon growth relates to pre-school education, in which enrollment has reached from 2.8 millions in 1975 to 6.8 millions in 1983, that is, an average annual growth rate of 11.9%. However, enrollment in 1983 only represented 22% of the 3 to 5 year old population in the region.

In relation to higher education growth, global figures for the region reveal a significant increase of more than 122% between 1970-75, with an average growth rate of 17% per year between 1970 and 1984, fluctuating from a population of 1.640.000 students in 1970 to 5.987.000 in 1984. Here again it should be noted that these global figures conceal great differences between one country and another.

Lastly, a final group of figures refers to repetition, in particular that of primary education.

The repetition level in Latin America and the Caribbean is particularly high and the situation does not seem to have improved since 1975. For the region, taken globally, the number of repeaters in 1983 constituted 14.5% of the total enrollment in primary schools, compared to 14.4% in 1980 and 12.1% in 1975. The decline in the percentage of those who repeated, during the period 1970-1975, practically stopped during the following period. In 1983 the number of repeaters increased to 8.5 millions, compared to 5.6 millions in 1970.

A study prepared for the 39th session of the International Conference on Education shows that in 1980 Latin America and the Caribbean was the region with the highest number of repeaters in primary school, followed by Africa (14%), Asia and Oceania (9.1%) and Europe (2.4%). On the other hand, recent studies indicate that the number of repeaters is substantially higher than those shown by these figures.

This regional average does not reveal important disparities between the countries. If the percentage of repeaters per country is analyzed, in recent years this percentage fluctuated from less than 5% in four countries,

Table 2

Evolution of the number (in thousands) and of the percentage of repeaters in primary education

1970		1975		1980		1983	
Number	%	Number	%	Number	%	Number	%
5.579	15.2	5.793	12.1	7.986	14.4	8.545	14.5

to over 20% in two, the majority of the countries having from 5% to 15%, with a repetition level of over 15% in six countries.

Analyzing the life expectancy and its counterpart school drop-out, it may be stated that in 1980 an average of 26% of the pupils enrolled in first grade of primary education dropped out before reaching fourth grade. This high drop-out level is not compatible with the objective of achieving universal primary education and of eradicating illiteracy.

In twelve of the twenty-four countries analyzed, no more than 70% of the pupils enrolled in the first grade reached the last primary education grade. In spite of a certain improvement noted since 1975, in more recent years the problem of drop-out continues being crucial in the majority of the countries of the region, but especially in seven of them, where the percentage of pupils who drop-out before finishing primary education varies from 52% to 71%.

The problem of drop-out seems particularly important between the first and second grades of primary education. In half of the countries, more than 10% of the pupils drop-out between these two grades; in some countries that figure rises above 30%.

What do the above figures mean?

In the first place, that global social demands of education continue being met by the State, directly or indirectly, through the central policy, but also by private agents, which to a certain extent reflects that the priority on education continues being considered. However, this priority seems to be disputed by other important concurrent sectors, such as military expenditure and payment of the external loan.

In the second place, there are specific social demands which meet with relatively more favourable responses than others and which may be seen in the significant expansion of pre-school education (average 11.9% per year) and higher education (average 17% per year). Traditionally, these demands would be related to those of the middle and high sectors; though this is a field which requires major research.

In the third place, the school pyramid reveals a particular situation in Latin America which tends to reflect its history. There is a broad basis with a coverage of about 90-95%, declining to the middle with a coverage of approximately 50% according to each country, and ending with a wide relative coverage at the summit. This evidences some important phenomena. On the one hand, it reveals that demands are met in relation to those who request to continue in the system to attain further education in an increasing number of years, in order to gain social standing and the possibility of access to the world of work in the formal sector of economy. It also reveals the great amount of diplomas granted and the relative loss of value of credentials as well as the capacity, mainly of the middle and higher sectors, to formulate demands to the State which are directly or indirectly met by it.

On the other hand, there appears what could be called the 50% barrier towards the end of primary education. Those who overcome it will very probably continue in the system to the summit, thus increasing their opportunities in life. However, the other face of the coin is that, once more, this situation coexists within a substantial mass of those excluded. In spite of the wide coverage, in global terms, 20-25% of the corresponding age group would not be able to pass second grade and 40-45% of the younger age group would not be in condition to acquire minimal literacy, having from that early age experienced failure with no possibility of entering the formal market.

Naturally, this picture poses, once again, some of the problems mentioned in the first part of this paper, that is: the superposition of historical situations whereby the State faces problems of the past decade such as national integration and transformation of the population into citizens; and secondly, it turns the specific nature of the State into a function of equity and compensation; thirdly, and this requires reflection, it confronts the State as concerns its educational policy, be it towards the base in terms of reinforcing a democratic process or towards the summit, to ensure the possibility of scientific-technical development so as to enable the country to be part of the International Labour Division being established. It should be noted that both are not contradictory or excluding.

Quality: the experience of failure

The question of quality is closely linked to the above-mentioned. The outstanding fact lies in the evidence of the limited efficiency of the system as such, in retaining pupils in the first grades of primary education. This situation tends to worsen and, as mentioned before, places Latin America at the top of the world. Probably, most of this phenomenon is due to the family structure prevailing in our region. Taking into account the installed capacity and coverage, the most important aspect at the primary level is not so much coverage, but rather school failure. For 50% of primary education pupils their main experience may well be failure.

Studies undertaken on this theme note that the educational systems tend to show as models, values of middle and high sectors of the urban centres which, in turn, are linked to

international patterns and a frank language. If school failure mainly occurs in popular and rural sectors, from the standpoint of quality it is because the system is unable to establish a pedagogical system capable of transmitting both a "universal" cultural model and to incorporate within it a "specific" cultural model. This is most clearly appreciated in bilingual-bicultural and in urban-marginal situations.

The curricular obsolescence

Another aspect of quality concerns educational contents and their relation to the acceleration in the production of knowledge at world level, with the subsequent change of context in which education is carried out. Due to various reasons concerning issues of financing and administrative structure, among others, different authors refer to the "curricular obsolescence" with which the education systems function as regards their tendency to provide social and scientific knowledge of little significance. Although, when production of knowledge was less rapid and generalized, access to the education systems was more restricted and more socially important knowledge was provided. At present, with the processes of the extension of coverage and of the development of knowledge, a phenomenon arises in which the system would be producing a school culture of scarce significance; both from the standpoint of a popular culture as from that of an ethnic and of a scientific-technical culture.

Under these conditions, the studies that show pupils spent more time in front of a television set than facing the teacher may lead to assuming that, although at present there is no transfer of functions, at least there exists competition of the mass media in relation to the homogenization and distribution of the scientific information, according to which the socialization process would be turning from the education system to that of mass communication.

The complex State-teaching staff-quality connection

A third central aspect concerning quality relates to the situation of teachers and this, as the other themes, is not void of complexity. In regard to what concerns us here, two facts should be noted. The first, related to the teaching staff which within the State apparatus constitutes the public sector's majority group and as such has its own interests and responsibilities. The second is that the item of salaries of the teaching staff within the education budget, has tended to increase, though there are small margins for this, reaching 90 to 95% of this budget. If the English-speaking Caribbean countries are not considered, this means that the funds available for the renewal and purchase of materials and equipment have been considerably reduced, to the extent that only four countries of the region allocate more than 2% of their budget to this end. In other words, in the short-term, teachers practically have no means available with which to carry out their task, and in the long-term, renewal of these means –including facilities– is not ensured, thus reducing as well the institutions' capacity to receive the new cohorts of students.

On the other hand, although the teaching staff have been able to negotiate to their advantage a major part of the education budget, I recall that the total mass of public expenditure in education lost 24% during 1980-1985, which results in a similar real loss in the value of salaries. This situation has lead to serious strikes in several countries of the region; however, whether such vindictive actions are justified or not, their impact on quality should be taken into account, given that one of the objectives and effects of a strike is to paralyze the system. Beyond the particularly critic current period, the general condition of the teachers' situation has ceased to be attractive to higher rating students and, furthermore, the system's own dynamics leads the most capable to tend to abandon the career in search of other activities. Finally, devaluation, the lack of incentives and the limited interest in the career and its outcome of teacher demoralization, are factors which have a significant impact on the performance of the teaching staff, and therefore, in the quality of the service rendered.

Public and private: a different quality?

A fourth element which concerns the State in this area of quality consists of the different circuits of education. Although the analysis of public expenditure in education seems to show that the State tends to orient its action towards the secondary and tertiary sectors of the system, the most significant increase in these levels is attributable to the private sector. As recently mentioned, repetition and exclusion are mainly situated at the threshold of secondary education. Therefore, the loss in quality would be connected mainly with those sectors scarcely related to the private sector and, on the contrary, quality would be improved in the secondary and tertiary sectors in which private education would play an increasingly important role. Outcome of this would be that the State's direct action in the education system would therefore tend to serve (in an inefficient way) training of the gross base population while training of the elites would be the function of private agents.

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Difficult management and the trend towards decentralization

Analysis of the aspects concerning management is difficult not only because of its close relation to the concrete modalities of the education sub-system within the State apparatus of the different countries but also due to the fact that perhaps, among all the State systems, that of education is the most complex due to its many connections of reciprocal influence with family, social, trade union and productive spheres, etc. Beyond the difficult issue of management of a complex and open system, the problem of the manageability of a system which evidences loss of its self-regulation capacity is posed.

In general, education system objectives are a reflex of the States' great expectations; however, they do not have the mechanisms available to enable learning whether or not the objectives assigned to the system are being fulfilled with a view to identifying inefficient areas and adopting the necessary measures. Lacking adequate evaluation mechanisms, it is not only impossible to know whether the objectives proposed are achieved or whether there is progress in the right direction but, likewise, a process is generated through which responsibility for results is gradually transferred outside the system; and this is particularly so in situations of negative results where recipients and their families are made responsible.

Management of the institutional operation within the context of the weakening of the State apparatus and of the "structural adjustments" resulting from the crisis, is related to the fact that those responsible for the education system have not been able to satisfactorily negotiate their budget and the "adjustment" has been applied to those social sectors with less capacity to negotiate. A management measure applied to counteract this loss of resources was that of almost massive discharge; other measures have tended to change management systems through rationalization and decentralization processes.

Generally, at the regional level the trend towards decentralization is evident. However, decentralization poses at the same time problems and promises. Certainly the opportunity to decentralize and the extent of decentralization carried out will depend on the countries, on the characteristics of the State and on the conditions faced by it. Moreover, it would seem that for decentralization to become a functional management practice there is need to establish a strong central level, capable of negotiating, formulating policies, setting up objectives and to create an efficient mechanism to evaluate results. On the other hand, the most feasible aspects of an effective decentralization seem mainly to be the education processes, curricular contents and pedagogical methods.

There are, however, certain risks which should also be made clear from the start. The operation of the State apparatus, just as it has been studied, appears to be highly sensitive to the demands of the recipients near decision making centres; a decentralization process could aggravate the differences in relation to meeting the demands of different groups, according to their connection with the centre and in particular to the allocation of resources. In the second place, the dynamics of some decentralization experiences in the context of a weakened State rather show a trend to differentiate the education circuit and to concentrate in terms of quality and results. In the third place and in connection with the aforementioned, the system could but increase the trend of exclusion if compensation mechanisms are not set forth, not only at the start but also at the end of the system, all of which should be based on a model to allow for the equity in the information on the actual progress and achievements of the learning process. Finally, decentralization poses certain specific problems in terms of the collective negotiation and tends rather to reinforce partial negotiation systems.

On the other hand, the potential benefits of such a process cannot be disregarded, especially those related to greater participation of the actors in the education process and therefore greater responsibility on their part in its implementation. Another benefit would be, naturally, the reduction of school failure due to the model's close relation to local needs and cultures; and in the third place, the fact that Latin American societies are multicultural, must be stressed.

I should not like to end leaving the impression that the educational picture is negative. If problematic situations have been stressed, it has been rather to indicate those fields which require priority attention on the part of the community concerned with the world of education, and certainly the positive aspects of the education processes in Latin America should not be disregarded which –among others– reflect reduction of illiteracy from 27% to 17% during the fifteen-year period as well as the fact of having lead the present young generations, who only thirty years ago participated in secondary education, to continue higher education twice doubling their number, and, it should be stated, these are real achievements, mainly the outcome of the work of the different generations of the teaching staff.

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TOWARDS A MATHEMATICS EDUCATION THINKING. CONTRIBUTIONS OF CHILEAN RESEARCH AT THE BASIC AND MIDDLE LEVELS

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Mathematics teaching at the basic and middle levels of the Chilean Education System may be analyzed from different perspectives. To illustrate this, one may state that an analysis perspective involves considering mathematics education in accordance with the emphasis proposed by the different curricular orientations (Eisner and Wallace, 1974; McNeil, 1977); another possible perspective is based on the mathematics learning level attained by the school population, or on the subjects taught. This perspective diversity causes variability in the data which guide teaching aims, as well as in relation to the situations forming part of the mathematics teaching-learning process and its evaluation system. Elaboration of a national thinking in the field demands taking into account different perspectives.

This document aims at contributing to the development of a national thinking at the service of mathematics education. Particularly, it seeks to support activities related to the discussion and analysis of the Fifth National Seminar on Mathematics Education aimed at proposing national actions and policies in the field, in keeping with the frame of reference established in the second issue of the "Carta-Boletín de Educación Matemática" (May, 1988) and within the framework of the Basic and Middle Education Levels of the Chilean Education System.

With a view to achieving this goal, this document presents an overview of basic and middle level mathematics teaching in Chile. Its structure takes into account the existing concern over the quality of education, in terms of its external and internal effectiveness. In other words, this overview of mathematics teaching is based on two main aspects. The first refers to the relevance and pertinence of the mathematics learning expected within the education system and what is really achieved. The second concerns the variables involved in the teaching-learning process. That is, the characteristics of the actions to be undertaken in order to achieve the objectives in view and the possibilities of optimizing the process, so that the results obtained may be the best in relation to the variables involved in it. The document has been prepared in line with the following sections: External Effectiveness; Teaching-Learning Process; and Final Comments.

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External Effectiveness

Mathematics teaching at the different levels of the education system is a conscious effort, realized through a relatively permanent change in the way individuals think, feel and act. The external effectiveness of the mathematics education programmes refers to the advantage of their learning in relation to the individual and social development needs. In other words, viewed from the perspective of external effectiveness, the quality of mathematics education should be analyzed in keeping with the relevance and pertinence of the learning proposed and attained as concerns personal, vocational and social development. This analysis comprises questions such as the following: Which mathematics modality should be taught in basic and middle education so that its contribution may be of relevance to the development of each student and of the community of which he forms part? What kind of mathematics knowledge and procedures are appropriate for the different development levels of the student?

What kind of knowledge, abilities, skills,

attetudes and dispositions should be attained with the mathematics teaching in the various levels of educational system? On what grounds should the selection of the various subject units forming part of the mathematics programmes be established?

To investigate on these questions several aspects were considered. Among the principal are:

- Current syllabuses.
- Some requirements of the world of work.
- Information provided by mathematicians.
- Information made available by mathematics teachers.
- Some data on the learning attained.

Following is a synthesis of the main facts considered under each of these aspects.

Syllabuses

Current syllabuses were established in 1980 for Basic General Education (Decree 4002, "Revista de Educación", Nº 79, 1980) and in 1981 for Middle Education with modifications introduced in January 1984 (Decree 300, 30 December 1981, "Revista de Educación" Nº 94, 1985). Within them, the expected results and some characteristics of the teaching-learning process are defined. Particularly, the general objectives of basic and middle education, the general and specific objectives of mathematics education at different levels, both for basic and middle education and their sub-cycles may be distinguished. In addition, the characteristics promoted by the teaching-learning process and its subject units may also be noted.

With a view to framing the general objectives of mathematics teaching, the general basic and middle education objectives are herewith presented. Objectives for basic education state that upon finalyzing basic education, students should be able to: "a) understand the reality of their personal, social, national and transcendent dimension; b) think in a creative, original, reflective, sound and critical way in accordance with their possibilities; c) continue middle level education in keeping with their capacities; and d) become responsible persons, with the habits and values proper of such individuals and participate in community life assuming their duties and demanding their rights. Among the values to be outstood are: love for their country; love for their parents and family; respect for the dignity of man through tolerance and understanding; and lastly, the values proper of the Christian society which is part of the National Objective of the Government of Chile" ("Revista Educación Nº 79, 1980: p. 4).

In compliance with these general objectives, basic education mathematics programmes aim at "contributing to develop in the students logic reasoning to enable adequately solving mathematics situations encountered" and "developing in the students the ability to rediscover and set forth mathematical concepts and principles so as to enable them, with a high degree of probability, to solve the problems of the quantitative environment present in their daily lives". (Rev. Ed. p. 4).

At a more specific level and in accordance with the study programmes, the outcome of these general objectives would be for mathematics education to contribute:

- to the development and to the discipline of rational thinking,
- to the development of the capacity to establish relations between the permanent characteristics of things,
- to the development of creativity,
- to the efficient communication of ideas through an adequate use of symbols, and
- to the application of the mathematical concepts and principles in other sciences.

These contributions would be attained through the achievement of the objectives of the subject units which are: notions on sets, decimal system, the four elemental arithmetic operations, numeration systems (natural, whole and rationals) powers and proportions, measuring, geometry and statistical notions. However, these objectives should be treated with flexibility and it should be assumed that the main minimal requirement is for students to carry out the four arithmetic operations and their essential supplementary notions.

On the other hand, six goals have been established for middle education. These are:

- to continue regular and systematic education, in order that each student may responsibly assume commitments with his family, with the national community and with the world's cultural development,
- to enable the student to acquire knowledge and abilities in order that he may play an active role in society, both in respect to material and spiritual aspects and to help him to become an active agent in life- long education,
- to enable the student to think freely and reflectively, judging and deciding on his own accord,
- to enable the student to have a clear understanding of the world in which he lives and of the problems and changes faced by humanity,
- to strengthen the knowledge and

appreciation of our historic-cultural heritage and attain an updated knowledge of the national reality, and

- to train persons so they may achieve the fundamental knowledge to enable continuing their higher education and their incorporation into the world of work (Exempt Decree 300).

Within this context, four general objectives have been formulated for the mathematics subjects and others determined for the first and second cycle.

The general objectives for middle education mathematics aim at creating the conditions so that the student may:

- Develop a research and creative spirit which fosters his/her intellectual curiosity and provides life long self-learning techniques.
- Strengthen and complete the acquisition of basic mathematical concepts deemed essential in the training of every educated citizen, to promote his future integration into the life of work and the furtherance of higher studies.
- Acquire a clear notion of mathematics science and its social function; learn some of its uses both with a view to reinforcing and extending mathematical knowledge in itself and to studying its relations with other cultural aspects, and
- Develop positive attitudes and values as an outcome of the mathematical task.

First Cycle

Likewise, there are four general objectives for the first cycle (1st and 2nd Grade of Middle Education). These are:

- To strengthen the acquisition of the basic mathematical concepts deemed essential in every educated citizen's daily life, as well as the development of abilities, skills and attitudes compatible with a scientific education, without disregarding the importance of attaining understanding in the application of rules.
- To develop his capacity for logic reasoning and generalization which may enable understanding his reality and help function better in it.
- To acquire the basic operative tools to enable posing and solving daily problems which may contribute to his future integration into the world of work and to raise the country's technological level.
- To attain positive attitudes towards the mathematical task: curiosity, objectivity faced with the evidence obtained, attitudes of tolerance and those of cooperation towards team work, of solidarity and, in general, of respect towards the individuals. In addition, within the programmes of this cycle, general and specific objectives are presented for the two first middle grade units (Introduction to Algebra in Reals, and Congruence and Geometric Constructions) and for the other two second grade units (Systems on First Degree Equations and Inequalities, and Circumference and Locus).

Second Cycle

The general objectives of the subject matter for the second cycle are somewhat similar to those formulated for the former. However, due to the curricular position assumed, the mathematics education objectives, at a more specific level, are different to both the common and the elective plans. Particularly, second cycle general objectives are:

- To strengthen the acquisition of basic mathematical concepts, deemed essential for the daily life of every educated citizen and those which serve as basis for his higher studies, and likewise, to reinforce development of abilities, skills and attitudes compatible with a scientific education, without disregarding the importance of attaining understanding in the application of rules.
- To develop his capacity for logic reasoning, for abstraction and generalization, to prepare him in applying some mathematics operations, both with a view to reinforcing and increasing mathematical knowledge in itself and for the study of other sciences.
- To develop a research and creative spirit to allow for a clear notion of what mathematics science really is, with what it deals, the type of thinking it brings about and the way to develop it.
- To show positive attitudes generated by the mathematical task: curiosity, objectivity faced with the evidences obtained; attitudes of tolerance and of cooperation towards team work, of solidarity and, in general, of respect for individuals.

The common plan objectives for mathematics education refer to the units on roots and second degree equations and to Proportionality and Similarity for middle third grade. Fourth grade objectives include units: Logarithms and Second Degree Equation Systems and that of Descriptive Statistical and Probability Elements. For the unit on Roots the students should be able to:

- Understand and apply the fundamental properties of the operations with real numbers in order to facilitate description of

relations, analysis of situations and the posing and solving of problems.

- Understand and apply second degree equations in solving verbal problems inherent in mathematics and other sciences, in order to allow for the interpretation of statements and for communicating results in a clear and precise manner.

The unit on Proportionality aims at:

- Strengthening development of basic notions concerning proportionality and similarity applying them to problem solving closely linked with everyday life in keeping with their logic and psychological development.
- Display a positive and creative attitude when faced with problems so as to enable them to continue organizing and structuring their mathematical thinking on real basis.

As for middle fourth grade, the Logarithm unit comprises the following objectives:

- To understand the importance and advantage of the proposals and development of different modalities of second degree equations and simple equation systems with emphasis on problem solving which may be applied to practical life.
- Learn about complex numbers as the most general scope of arithmetic and which will enable full discussion on Quadratic Equation roots.

The unit on Statistical Elements aims at the achievement of the following objectives:

- To develop the capacity to transmit information as of the techniques used in the descriptive function and to recognize its importance as a useful tool in the analysis and development of more accurate, objective and critical judgements.
- To understand and apply basic probability notions in problem solving at the practical operational level and to recognize their undeniable cultural, educational and practical importance when introducing other forms of thinking not included in the traditional (or classic) mathematical training.

The elective plan is focused on the application of mathematics. More precisely, the following subject units are considered: Matrices and Determinants; Plane Trigonometry; Plane Analytical Geometry; Computer Elements; Intuitive Notion of Derivative Functions; Combinatorial Elements; Geometric Application.

The general objectives for these units are:

- To understand the basic notions concerning matrices which enable envisaging mathematics as a coherent whole, with manifold uses and not as a set of isolated techniques.
- To strengthen many areas through the study of trigonometry in order to calculate angle measurements and triangle sides and to recognize in it a mathematical tool essential for the study of situations arising from a substantial number of disciplines.
- To establish and apply relevant concepts of analytical geometry in problem solving which in addition are conducive to delving into the elemental mathematical contents.
- To understand and value the cultural and educational importance of automatization which fosters a spirit of research and the intellectual development of the student.
- To understand and apply the main notions in relation to derivative functions and recognize their importance within mathematical development and in other disciplines of knowledge.
- To apply the basic notions concerning combinatorial in problem solving at the practical operational level and relate them to probability calculations.
- To understand and value the importance and use of geometrical applications through algebra in the development of his capacity for reasoning and in the structure of a reasoning discipline.

Mathematical Requirements of the World of Work

In past years there has been concern over the disconnection between education and work. To this end, national and international seminars have been held on the theme (for example, Unesco-PIIE, 1984; OISE-CIDE-PIIE, 1986; CIDE-BRIDGES, 1987). One of the most frequent criticisms of the education system is that it is a close system. That is, study programmes are designed by Ministry of Education personnel with limited or no participation of other social agents and in which basic education prepares for middle education and this, in turn, for higher education, although 80% of students do not enter the latter (Corvalán, 1985). Several data on the world of work stress that the notion that education should train individuals in relation to a definite occupational structure is inadequate. Moreover, this information shows the difficulty in connecting, in an approximately linear way, occupations with the educational demands. To illustrate this, one may mention the fact that in the employment market the existence of segmented labour markets is accepted (i.e.

Carciofi, 1980; Carnoy, 1978) thus implying that for one specific field of activity, traditional and modern production modalities coexist, influencing the variability of the labour tasks or activities within a specific occupational title.

In addition, several data reveal that training must be addressed to an heterogeneous occupational structure which, in turn, is dynamic. This information stresses that: there are no adequate human resource projection models; the employment evolution and its projections show the incapability to absorb young people; the critical employment situation has distorted placement of individuals in jobs, and these are performed by better qualified persons; technological changes increase demands in some jobs while others diminish; jobs show a tendency to disappear due to an increasing variety of tasks assigned to the individuals, except in those jobs which are in "demand" at the time; a tendency towards desertion on the part of workers of the industrial sector is observed while the number of independent workers increase (Montero, 1986).

Usually, in training for work a general and a specific preparation may be distinguished. The former corresponds to the general education level, which facilitates and reduces specific training. Within that general training, mathematics has been assigned a relevant role. Particularly, general training has been typified in 6 general education levels based on the development of reasoning, mathematics and language. The development of reasoning varies as of the ability to carry out oral simple instructions (2 to 3 steps) in routine tasks with very few concrete variables, to the ability for applying logic and scientific reasoning in intellectual and practical problems with a wide range of abstract and concrete variables using the symbolic and conceptual language. On its part, mathematical development poses varieties as of the application of the elemental operations in naturals and the measurement units as meters, centimeters, kilograms and grams to the utilization of advanced mathematical knowledge such as calculus, linear algebra and statistics.

One of the main limitations in the above typology is that it is based on the educational requirements determined by means of occupational analysis. This approach assumes that the worker must perform standard and previously designed tasks with limited change in his activities in accordance with a certain post description. From this perspective, education must be functional in order to successfully perform the tasks required for the job. However, as a result of the heterogeneity and dynamism of the occupational structure, workers must make use of various and new capacities, abilities, skills and/or attitudes in order to carry out their jobs with efficiency. Furthermore, it has been stated that a relevant training for workers of the informal economic sector (jobs characterized by low capital investment, use of unsophisticated technology, low work productivity, with lack of social protection...) should be multipurpose (Corvalán, 1985). Therefore, training of workers for change should comprise a "know how" to enable them acquiring, organizing, changing and critically generalizing their knowledge instead of utilizing it mechanically. Education oriented towards a know how through the transmission of knowledge, the development of capacities and dispositions should enable individuals to give rise to criteria on the decision to utilize, adjust or create appropriate technologies to meet the needs of their reality. In this context, educational innovation should be a new stimulating way to significantly change the educational practices rooted in the school culture so that persons may have a sound know how for decision making in an increasingly turbulent environment (Montero, 1986).

Consultation

Based on this and other concerns, thirty three individuals of a purposive sample were interviewed to enable exploring the relation between mathematics and the labour field (Díaz, 1987).

The purpose of the sample covered an heterogeneity as concerns training and experiences of the subjects surveyed in order to explore, from different standpoints of the labour world, mathematical needs. Seventeen were professionals responsible for research, studies, planning services and/or development of institutions in charge of coordinating, designing and/or implementing general educational policies. The rest were professionals in charge of the Department for Development and Training or workers concerned with education.

Information was obtained through interviews and surveys aimed at gathering data on the perception of the participants concerning the current and immediate-term qualifications, the principal educational demands for the formal system and main mathematics needs in terms of capacities, content and attitudes for unskilled, semi-skilled and skilled jobs.

Responses revealed, on the one hand, that mathematics is a tool. It directly helps solve quantitative problems and, for a substantial number of workers, it is highly important to be able to represent in the graphic language of communications various phenomena (physical, economic, etc.). This permits widening their

communication, facilitating elaboration of models to help understand the phenomena, synthesizing, simplifying and stressing their main aspects, with due regard to the fact that every model will be relative. In addition, a minimal knowledge of the basic equations in algebra provides the worker with a means to strengthen a concept very superficially taught and gives them a sense of security and happiness in being able to apply them properly in their actual problems.

On the other hand, mathematics is a means to train reasoning, ordering it and incorporating the rules of the mathematical reasoning in everyday thought. That is, it broadens and improves reasoning; makes the use of vocabulary and of the language more precise, ordering thoughts and establishing coherent sequence of ideas; develops the capacity for analysis and synthesis. It also helps improve the scientific methods applicable to all spheres of the human task; to identify the existing problem and search for alternative formulas for the solution of the same. It has the capacity to awake reasoning and abstraction powers at an early age. In psychological terms, its command –even the most elemental– reaffirms personal self-reliance.

Generally speaking, every worker should have a minimal general education to enable understanding human knowledge and his specific training should be strongly inspired on his own practice. In this way, he would start by analyzing the most complex phenomena so as to change them later on to more simple ways until reaching their materialization and then, he would go back to interacting with reality. Thus, decision making would be improved as, generally, people lack logic because, given some premises, it is usually rather impossible to reach valid conclusions, in addition to the fact that the use of the vocabulary in such an ambiguous way hinders understanding.

Three levels

In a more specific level, findings of the sample revealed significant differences in mathematics needs in accordance with the three qualification levels: unskilled, semi-skilled and skilled.

For the unskilled worker, that is to say, the worker who carries out subordinate duties which prepare or form part of a task and who interacts mainly with things and in a very limited way with information and does not take part in decisions, his mathematical needs are minimal. He has to apply the four basic operations in problem solving related to his environment. With less emphasis he needs to interpret basic mathematical concepts and the numeration system, decimals, simple fractions, proportions, both percentage and measurement. In a few cases, efficient use of a calculator may be required or there will be need to analyze problems proper of his labour environment.

For the semi-skilled worker mathematical demands increase, considering that he undertakes a job not requiring specialization and which covers approximately 80% of the physical and intellectual tasks of a trade. It is highly necessary for him to apply the four operations in solving the problems of his environment and will frequently have to interpret the numeration system, decimals, simple fractions, proportions, percentage and measurement. He needs to organize and interpret data and results. Less frequently, efficient use of calculators will be required, as well as to carry out estimations and approximations and to analyze world labour problems using graphics, approximations, discussions with other individuals, comparisons, reformulating and seeking partial solutions.

On his part, the skilled worker carries out all the tasks of his trade, which are complex, varied and demand capacity for taking decisions. He has the greatest responsibility for the operational development of the productive process. It is essential for him to apply the four operations, to interpret the basic mathematical concepts and data and results while using them: word processors, electronic sheets and data base are almost always necessary.

Additionally, it is suggested that in a "recurrent way, concepts on measuring, fractions, decimals, percentages and sets be studied, as these are deemed as the most fundamental and essential mathematical tools in the training of individuals from the labour viewpoint. Specifically, during the first years of study, both the decimals and the measuring concept should be included, recommending, as well, that basic numeration mechanisms be incorporated: calculus techniques, powers of ten and scientific notation, fractions and percentages. In sixth and seventh grades all the contents in force within the respective programme should be included, in addition to new subjects. Especially, the contents on decimals and percentages should be strengthened, being necessary to include the subjects on measuring, basic numeration mechanisms, fractions, ratios and proportions and geometric concepts and properties, calculation of measures of geometric figures, notions on sets, powers, graphic representations and first degree equations.

Lastly, for the cycle covering basic eighth grade and middle first and second grades, all the above- mentioned subjects must be taught in depth, stressing decimals and first degree equations. New themes are included such as

functions, linear function, quadratic function, estimates and approximations, probability measurements, analytical and space geometry. With less emphasis, calculus notions (limit, derivative, integration) and algebra structures are recommended" (Díaz, 1987; p. 221). It is also suggested that "geometry is a discipline that every student should learn, particularly Euclidean geometry" (p. 220) and that as of the basic sixth grade, computer elements should be included. There is need for the sixth and seventh grade students to develop their first algorithms, going deeper into them during the following cycle of basic eight grade and first and second middle grades. Brief computer programmes should also be designed for this cycle –20 to 30 steps– in Basic, Pascal, Cobol, etc., and use utilities as a computational tool: Word Processors, Electronic Sheets, Data Base..." (p. 222).

In short, participants in the sample together with confirming the importance of mathematics in the world of work, through their responses revealed requirements and characteristics of mathematics education. However, conclusions of the survey are tentative hypotheses, needing more in-depth investigation.

In general, the relation between education and work has been scarcely studied and less still the relation between mathematics education and the world of work. In this review it was impossible to locate other empirical studies undertaken on this theme in our country in the past decade. This lack of studies had already been noted in a review of the research carried out on Latin America and the Caribbean with a view to investigating on the Effects of Primary Education of Children on the World of Work (Montero, 1987). Among the relevant conclusions of this overview of research, stress is placed on the fact that the education system is based on an academic conception aimed at the continuation of studies in a close system. Advantage of learning in education in the world of work is practically unknown and, furthermore, there is a gap concerning studies on the retention of what has been learned, of its utilization in jobs and on its effects on productivity.

Finally, it seems important to point out that current research in the United States, where technological change has had a significant impact on the occupational structure, stress that mathematics education continues being of paramount importance. For example, categories and their levels of intellectual, interpersonal and manipulating capacities which have served as basis for the study of over 20.000 jobs, continue being fundamental pillars in determining and training capacities considered essential for jobs (Spenner, 1985). These essential capacities are in line with those concerned with data and information management, with the relations between individuals and the management of things, machines or equipment. Particularly, capacities related to data and information management are linked with the abilities included at the general training levels, which comprise logic and mathematics development variations.

In broader terms, an important line of investigation refers to the efforts to develop taxonomies of human behaviour in connection with the labour needs. It has been developed on the basis of the effects of: different training methods, environmental and labour conditions, disposition factors and individual capacity differences (Fleishman and Quaintance, 1984).

Many studies have been directed at classifying the human tasks as of the: behavioural description, behavioural requirements and by means of the relation between the capacities and characteristics of the tasks. In each of these approaches, mathematics plays a role of great significance. For instance, in the approach on capacities, the 150 factors defined by Guilford (1977) were notably reduced with the Pawlik research (1981). Of the six factors proposed, three would be closely related to mathematics: a) numeration facility, b) convergent reasoning (inductive and deductive reasoning) and c) divergent reasoning (production of new ideas and new reasoning procedures as opposed to the application of rules already learned).

Perspective of National Mathematicians

Trends of developed countries have been borne in mind in the selection of the desired mathematics learning and contents in the syllabuses of Basic and Middle Education. Admitting that there is a significant interdependence among the countries which affect national culture, policies and actions, this review consulted the opinion of the scientific community and of national specialists in mathematics as to what should be promoted through mathematics teaching in pre-university education. A general position of scientists is their critical view concerning study plans and programmes.

Several National Scientific Communities have stated in various opportunities their disagreement in respect to the dispositions contained in the Decree 300. Particularly, members of the national committee of ICSU (International Council of Scientific Unions) have expressed their concern over the clear lack of natural science teaching and, especially, the virtual elimination of Physics and Chemistry in Middle Education (Committee on Science Education, 1983).

One of the most controversial aspects is

the approach focusing on the individual, which would not adjust to the national reality: among its weaknesses mention is made to the fact that the programmes would not meet the expectations of a cultural, social or economic development of the great majority of the population. In the opinion of these scientific communities, the "great extension of the previous plans and programmes would justify a reduction of the workload on the students, but only by rationalizing the contents and never by reducing an important part of the cultural wealth of humanity" (p. 5).

These shortfalls would be hindering the student's development of their capacities to understand and participate in the scientific and cultural changes taking place in the world and the acquisition of the scientific knowledge which would enable understanding the nature and projections of modern science..., aspects which have been established as general objectives of the education system. The Mathematics Society of Chile has made known these preoccupations and is at present analyzing the middle education study plans and programmes on mathematics.

Opinions of specialists in mathematics have been explored by means of in-depth interviews (Quiroz, 1986). In that study, twenty five members of the Mathematics Society of Chile, who carry out research, participated. They were very interested in the purpose of the study which covered the following aspects: science and production, development of mathematics in Chile, essential aspects in mathematics education, the subject matters, mathematics teaching methodology, teacher training and pre-school education. As concerns what should be taught, the opinions cover a set of objectives and suggest, at the same time, mathematics contents for the basic and middle levels.

In the opinion of those interviewed, mathematics teaching should be directed to the achievement of ten objectives: They are:

- Creativity and a critic spirit.
- Curiosity (and experimentation).
- Capacity for abstraction and generalization.
- Capacity to establish relations.
- Algorithmic reasoning.
- Capacity to deduce and induce.
- Capacity to calculate.
- Capacity to concentrate.
- Capacity to appreciate mathematics limitations in relation to other disciplines, and
- capacity to appreciate achievements.

"The most important of the aforementioned objectives is the development of the creative capacity linked to a critical spirit" (p. 92).

As concerns the subjects that should be taught, the majority of the mathematicians interviewed agree in that they are important but not essential. Responses also revealed that the subjects should be applied and should meet the reality of the learners, that they should be turned into tools to solve problems and that it is necessary to have available a group of subjects considered as basic information for every person. In addition, it was stated that the principle of "learning to learn" is a sound one if and when it is not carried to extremes. That is, this principle should be realized on the basis of certain contents and not of others.

Unsolved problems

The emphasis placed on the teaching modality more than in the selection of the contents to be taught, which has prevailed in the past years, does not solve the problem of the quality of mathematics teaching. "In other words, there is little advantage in teaching in an excellent way the 5 or more ways of solving a first degree equation system if, for example, its link with geometry, physics, chemistry, etc., is not taught by means of problem solving, and other contents of equal of greater formative value are not included either (p. 104). In short, an isolated content does not contribute to the training of the individual and, therefore, it should be included in a broad context to enable solving problems beyond the specific content.

As concerns Middle Education and at a more specific level, those interviewed revealed their concern in regard to Decree 300, especially due to the limited importance accorded to the subjects on Chemistry and Physics, as the eventual lack of them reduces the field of motivations and applications of mathematics teaching. Another observation made by the interviewees refers to the fact that the collegiate body of the Chilean mathematicians was not consulted. More precisely, opinions concerning the subjects showed that some should be eliminated or their emphasis diminished; others should be assigned to a lower level and still others should be added or strengthened. However, it is noted that more important than the titles, their scope and depth should be considered.

Most of the mathematicians interviewed believe that the treatment of equations and their techniques for solution could take less time. This would permit emphasizing the posing and solution of equations assocciated to those problems. Likewise, emphasis on logarithms and second degree equation systems should be reduced and instead greater importance should be accorded to trigonometry, because of its practical

implications. In addition, it is considered that it would be possible to transfer to middle first grade elements of combinatorial, elements of descriptive statistics, logarithms and basic procedures on matrices.

Almost all the interviewees coincided in that the subjects proposed as elective for middle education should be compulsory. Specifically, they should form part of the plan on basic mathematics training: computer elements, trigonometry as part of geometry, derivative and integral notions and analytical geometry.

Other suggestions refer to placing greater emphasis on arithmetic (study of prime numbers, breaking down of natural numbers into prime factors, divisibility and its properties, etc.) and to the transfer of practically all the subject of geometry from middle to basic education, establishing for the former a semester for the synthesis of plane geometry and another for solid geometry. Interviewees also coincided in pointing out that basic education should include first degree equations and the numeration system up to Q, proportions and graphics and that it would be desirable to incorporate in middle education the study of algebraic structures as of sets, rings and bodies, up to vector space linking algebra with geometry. In addition, it is deemed of utmost importance to introduce notions on approximation through the concept of limit, for which it would be necessary to carry out in-depth discussion on two basic concepts such as the Variation Rate and Accumulation of Areas, present in many of the practical situations.

In short, the mathematicians interviewed propose a substantial increase of mathematical reasoning and of the quantitative and qualitative mathematical content (Oteiza, 1988). Their propositions are not too different to the contents taught in some other developed countries at the secondary level. However, their opinions reflected both the need to relate mathematics and science to national development and the concern to create conditions for the establishment of a national mathematical thinking. The objectives proposed for mathematics teaching greatly exceed the traditional academic vision and, apparently, are opposed to the more specific thematic suggestions, extension and depth of which are not in keeping with the initial assumption upheld by them that reasoning is more important that the content.

Teacher Perspective

Orientation of the plans and programmes provided teachers with much flexibility in the selection of the mathematical objectives and contents. That is, instead of establishing set programmes, some main outlines were provided and the teacher was given the responsibility of adjusting the objectives and contents of his teaching to the reality of his students. In this way, teachers may favour certain mathematical teachings for the development of their students in accordance with the priority their professional experience suggests. In this review, few studies revealing this vision of mathematics teachers were found.

Exploration of the perspective of teachers concerning what should be taught was carried out by Olfos (1987). Twenty five teachers working in the Metropolitan Area were interviewed, providing them with a semi-structured outline. They had an average experience of 14 years, 54% taught in middle education and 28% worked in private schools. Responses revealed that plans and programmes vary from one establishment to another. While some of these schools in 1985 maintained their previous middle fourth grade plans and programmes in force, others changed them in accordance with the philosophy contained in Decree 300 (common and elective plan), while several establishments conducted their own programmes, significantly increasing their weekly time schedule. The main concern expressed by the teachers is to attain in their students the development of their logic and deductive capacities. Therefore, they stress: problem solving, management of abstract concepts, Euclidean geometry, posing of open problems, analysis of different situations or the algebraic skill with stages directed to the intellectual capacities of the students.

However, in practical terms, selection of the contents is strongly influenced by the requirements of the "Prueba de Aptitud Académica" (Academic Aptitude Test). This has lead to excluding the themes on probability and statistics although considered important.

The trend of middle education teachers is not to eliminate contents. "There is consensus in the advisability of not excluding any content and that, on the contrary, more class hours are demanded in order to learn the subject better" (p. 70). Moreover, subjects are interrelated and are essential for continuing higher studies. This concern in preparing for further studies has lead them to intensify study of geometry, even considering topics of basic education. The interviewees stated that during the past five years, the following units were included: Vector Space, Structure and Vectors; Matrices, Calculus, Geometry, topics on Application and other themes in keeping with the course's characteristics. In addition, they also expect inclusion, in a near future, of computation,

calculators and, with less frequency, logic, theory of sets and analysis.

On the other hand, teachers pointed out that the number of themes considered of little motivation for students is not high. Moreover, there were differences in opinion. It seems that the students' interest in a certain topic depends on the way the teacher conducts it. "That is, the students' interest relates to the command the teacher has of it and the pedagogical style of the same" (p. 69).

The aforementioned tedious themes are trigonometry, conics and extreme points. "Trigonometry is considered a difficult subject, due to the deficiencies shown by the students in carrying out algebraic and geometric procedures, and the variety of problems concerning their applications which demand the students reasoning" (p. 69).

Generally, a conflicting aspect lies in the students' low understanding level and limited reasoning. "The students' low abstraction level makes them reject geometry and, in general, themes involving reflexive reasoning. Students prefer studying definitions and formulas in geometry and algorithms in algebra rather than carrying out analysis and deductions in geometry and proofs in algebra" (p. 73).

This conflicting position had been previously noted in a paper focused on mathematical demonstrations in middle education. In fact, Padilla (1985) surveyed 117 middle education mathematics teachers, averaging 31 years of age, with professional experiences varying between 1 to 25 years. The purpose of the study was to explore the frequency of use of middle education demonstrations and the difficulties perceived by teachers in not making use of them. Findings showed that 70.2% of the total sample were of the opinion that demonstrations in middle education are not frequently carried out, in spite of the fact that 80.8% believed use of valid reasoning to be necessary. The main difficulties noted by these teachers for not undertaking demonstrations lie in teacher training and in the students' limitations.

Among others, opinions showed that teachers believe students are not prepared to use their reasoning, they consider that the education environment is not suitable for this type of activities and that students lack the knowledge on relevant contents. In other words, when a teacher enunciates a theorem and does not demonstrate it, it is because "it goes beyond the course's objectives (31.4%), they think students will not understand what is being demonstrated (28.6%), teachers ignore how to demonstrate the theorem (24.8%) and, 15.2% believe there is a lack of elements needed to understand the demonstration" (p. 47). Most of the demonstrations would be carried out in Plane Geometry (Euclidean), later in Algebra and finally in Trigonometry.

Abilities for operations

As concerns basic education, teachers considered that all contents are useful (Ollos, 1987), stressing the importance of Fractions, Proportions and Percentages because of their practical use in daily living. It is also emphasized that during past years, teachers have placed more importance in the applications and concepts rather than in the abilities for operations. In addition, this survey revealed that there are no common criteria on the contents or skills emphasized by teachers during the past year. They mentioned the need for according greater importance to the students cognitive skills than to the inclusion of new themes and stressed the need for increasing the number of classroom hours.

Subjects treated with less frequency than previously are geometry as well as formal aspects: "in general rationals are not considered as a set of classes" (p. 80). It seems that the stress is in keeping with the environment in which they evolve and according to the institutions' expectations.

On the other hand, Arce (1987) studied and compared the opinions of 64% of the teachers of basic and middle education of the Province of Chacabuco on most relevant objectives with the greatest achievement difficulties in basic eighth grade.

Both basic and middle education teachers mentioned that the most significant objectives are those on Arithmetic: particularly, procedures, properties and problem solving are the contents most taught by eighth grade teachers and, in turn, those which are required for entrance to the first grades of middle education.

Results of the study revealed that the topic Elements of Descriptive Statistics of the eighth grade programme is considered of little importance and is not included in the diagnosis tests of the first grade of middle education. The study also shows that an instrumental and pragmatic approach is generally assigned to mathematics education and, therefore, it would be advisable to carry out studies to provide information on the real contribution of this subject to the development of the students' logic reasoning.

In global terms, from the curricular viewpoint, teachers support heterogeneous perspectives which do not reveal consensus on the social role of their function. "The goals teachers try to attain in mathematics education are determined, it seems, by circumstantial criteria (socio-economic conditions of the environment in which the teacher carries out his task, curri-

cular conception of the teacher, tradition –present through the influence of colleagues– and the curricular orientation of the institution)"... "Teacher participation in the selection of objectives is weak. In class planning he assumes a traditional position (academical and/or cognitive) with no consideration to the long-term objectives which –sometimes– have a different orientation" (Olfos, 1987; p. 123).

Two of their most frequent concerns are the number of students furthering their higher studies and the capacity of their students to project the subject in their daily lifes. Although they are conscious of the need for changes, their responses point to global aspects such as student attitudes, habits and values. These statements are insufficient to overcome cyclical elements such as the Academic Aptitude Test, workload of teachers, the influence of some teachers or academicians and the school environment, in general, which hinders a more reflexive educational task and which may generate significant, conscientious and fundamented changes.

Achievements in Mathematics Learning

Various data reveal that mathematics achievement for basic and middle education, is poor. In a recent review (Gálvez and Villaroel, 1987) they systematize a group of evidences confirming the unsatisfactory achievement level of the objectives of mathematics education.

For example, in basic education, in accordance with the results of the "Programa de Evaluación Escolar (PER)" (Programme on School Evaluation) of the fourth and eighth basic grades, conducted in 1982, 1983 and 1984, revealed that the level of achievement is of approximately 50%. Specifically, during the years 1982 and 1984, respectively, the averages reflected an output level of 50% and 53% in fourth grade of basic education and 44% and 47% in basic eighth grade. In addition, based on progressive tests (tests at different levels which comprise common items) and of a ratio which enables estimating backwardness in years (Himmel, 1986), findings revealed that second grade students in average were backward in approximately half a year; those in basic fourth grade in about three quarters of a year; those in sixth in 0.88 year and those in eighth in 1.27 years. Consequently, in average, eighth grade students were not even achieving 80% of the seventh grade objectives.

These deficiencies are more significant in rural zones and in institutions of a low socio-economic level. In the opinion of Brizuela and De Gregori (1986), when applying the backward rate to rural eighth grade students in the Fifth Region of the country, they found out that students had a backward average of 6.33 years, while in a previous study of urban students of the same region 2.15 years was estimated (Brizuela, 1982).

On the other hand, according to the PER results, when comparing the achievement levels among the different socio-economic level institutions, marked differences were observed. For example, in public schools of the Metropolitan Area of a high socio-economic level, the average achievement rate was 76% while in the same type of school and in the same locality but of a low socio-economic level, it was 50%.

In the schools depending from the Municipalities of the Metropolitan Area, it was 65% for those of high socio-economic level while for those of low level it reached 50%. In addition, findings tend to reaffirm the fact in that rural schools of a low socio-economic level the achievement level is the lowest. In short, findings confirm segmentation of the education system through a subject which is recognized as important for the intellectual and personal development of children.

As concerns achievement levels, findings also reveal some significant deficiencies. Some indicators of achievement are based on entrance tests to the university. In the Academic Aptitude Test results revealed that the average gross markings was below 50%. Actually, this average has varied from 16.1 in 1967 of a total of 60 questions, to 24.0 in 1984 of a total of 50 questions.

On the other hand, the average markings of the Test on Mathematics Specific Knowledge have had a ceiling of 20%. That is, up to 1971 an average of three to five correct responses of a total of 40 were obtained; in the period 1975-1984, the average gross markings varied from 4.3 of a total of 40 questions to a maximum 10.8 of a total of 50 questions (Díaz and others, 1985). Several studies (for example, Prauss, 1984; Rodríguez and Levet, 1982) note that the objectives generally achieved are those which aim at learnings involving routine activities or memorization, stressing the lack of knowledge in the use of complex procedures or of indicators of the development of higher reasoning.

Although these selection tests are constructed in accordance with the frame of reference of standards, and therefore some interpretations of the level of achievement of objectives should be taken with caution, the low gross markings obtained, together with a high percentage of unanswered questions would be revealing a lack of familiarity of the students in respect to the topics.

This interpretation is consistent with the conclusions of a study on retention carried out

with middle second grade students in Talca (Narvaez, 1986). This work revealed that 58% of the programmatic objectives are actually taught and that approximately 18% of them are retained.

On the other hand, there are enormous inequalities in the distribution of knowledge of students who have finished middle education. In the opinion of Rodríguez and Levet (1982) out of 208 questions analyzed only 15% are answered correctly by more than 40% of the candidates; that is, 40% of the correct answers are responded by less than 20% of the candidates.

Another work (Himmel, Majluf and Maltes, 1982) confirmed that the heterogeneity of the results of the Academic Aptitude Test strongly depended on the macrostructural variable (financing source, geographic location and socio-economic profile of the population served). This would be confirming, once again, that the differences in cognitive mathematics learning would be closely related to the socio-economic level.

However, this relation between results of mathematics education and socio-economic level bear unquestionable incidence on other capacities –such as the affective. For example, Montero and others (1988), compared the self-perceptions on mathematics learning between students of different socio-economic levels of middle education.

In accordance with a theoretical framework of self-concept for mathematics education, based on the Attribution Theory on Motivation, an instrument was elaborated with 97 items applied to 409 students of the Metropolitan Area, of which 176 are of low socio-economic level and the rest of high level. When comparing the frequencies of the replies by item, results revealed that in approximately 80% of the items of the questionnaire there are differences of statistical significance ($P <= 0.05$). These differences, were generally more positive for those of a more advantaged socio-economic level.

In short, the achievement levels of the mathematics programme objectives are quite below the expected level. There is, in average, a noticeable accumulative backwardness which increases as enrollment grows and, thus, the general objectives of middle education are only partially achieved even by students who graduate from it.

Generally, students learn through repetition and memorization, which is in open contradiction to the expectations and justification of their education, expressed in terms of its general objectives: formative, informative, instrumental and practical. These learnings not only indicate inadequate achievement, but reflect as well results opposed to the teaching aim. These conclusions would be stressing the urgent need for revising and improving the procedures used in mathematics education, aspects which will be considered below.

Teaching-learning process

Different and various explanations have been provided in relation to the students' low achievement level of the mathematics objectives. Each of them emphasizes one or various variables of the mathematical teaching-learning process. For example, some of them focus on the presentation of the information or contents, others on the lack or inadequate quality of the textbooks, on teacher training, or on student behaviour. In general, there are multiple variables and indicators related to the learning process which have a bearing on the quality of education. In the field of general education, Rodríguez (1987) carried out a review of research on these variables and indicators. For mathematics education, it was possible to identify several of these variables which affect the teaching-learning process. In this paper, findings of research related to the variables and indicators on this field will be given.

Research on the teaching-learning process vary between two not necessarily excluding emphasis. The first, refers to teaching in keeping with a sequence of rationally determined steps, and the second, considers teaching as a process of interaction with the students. Within the interactive emphasis, research focus on the organization of the classroom work and on actions and relations between the teachers and the students as basic elements for explaining the achievement of the objectives. This emphasis is herewith presented. That is, through the findings of studies, an attempt is made to exemplify the emphasis to form part of a reflection related to the improvement of the results of the process. It is important to stress that these emphases and intermediate positions are not necessarily contradictory.

The Teaching Process Based on a Rational Sequence

Planning is a substitute of luck (Kauffman, 1971). That is, a plan is a set of decisions adopted on the basis of a reflexive classification and organization of various elements having great probability of success in achieving a specific goal, target or objective. In other words, planning is a means for reducing improvisation. Probably the majority of us agrees that planning education is essential in reducing the probability of making mistakes in decision making; however, when trying to

agree on how to go about it, different and even some opposing options emerge. In this section we will show some of these different positions.

Content Oriented Planning: A generalized position is to plan transmission of information, currently expressed as "passing the subject" (going through the subject). According to this position, planning is focused on a grounded, coherent and precise exposition. Three important elements should be included with a view to conducting a good mathematics class. "Firstly, an excellent motivation which should start by showing students how or which concept is found in nature and that there is only the question of searching for it. Secondly, there is need to formalize, that is, place things in abstract and then study them thoroughly. And lastly, make students see the resulting open problem" (Quiroz, 1986, p. 122).

As concerns content oriented planning, contradictory opinions prevail among mathematicians and some important observations which affect the sequence of the contents. Lack of consensus refers to the so called "Historical paradox".

A group of interviewees state that the general approach of teaching should ..."follow an historical order in mathematics education, both at the basic and middle education level, which means studying first arithmetic, followed by geometry in conjunction with algebra, trigonometry, calculus, etc., in order to understand the way this knowledge has been conceived. An outcome of the above is that the Theory on Sets, relatively modern (1980-1930), should not be taught in school" (Quiroz, 1986, p. 119). On their part, the other group of intervewees who do not share the view of an historical approach in mathematics teaching believe that important aspects of contemporary mathematics would be left out. "Mathematics may be updated at the teaching level and it should break away from the prejudice of teaching in accordance with the historical development it has undergone. If the old is taught, it is due to the fear of being unable to teach the new without having taught the old" (Quiroz, 1986, p. 119). Outcome of the latter would be that the new would only be taught at the University and most of the citizens would not have the opportunity to understand or use mathematics in our times.

An internal contradiction

Another difficulty encountered in planning in terms of contents is that of establishing an harmonic relation with praxis. According to a mathematician interviewed "mathematics is quite peculiar in that it is designed in a way but it is demonstrated in another. I would call it almost an internal mathematical contradiction. Generally, one shows things one has done in the opposite order to that discovered, for reasons of comfort, elegance or others. This implies that in countries such as ours, in which there is no living mathematics school, people interested in this field will receive from international publications a completely opposite image of mathematics" "...an abstract building is constructed starting from the general to the particular, from the abstract to the concrete, in which the reader lacks motivation or direct experience, in which he is completely on the opposite side of mathematics praxis. This tends to maintain a situation in which teachers take in this image and transmit it to their students remaining with them rather permanently" (Quiroz, 1986, p. 75).

In short, rational planning in terms of contents presents several limitations. Among them, and also important to overcome, is that the exposition is addressed to an average and abstract student who is not usually found in the classroom and that mathematics should be seen as a living science whose results are constructed and not as a set of fixed rules. This would indicate that rational planning should be flexible in order to attain student participation, as what "would be ideal for the teacher to provide an outline at the beginning of a class and after the class has discussed it, new notes are set forth" (Quiroz, 1986, p. 121).

Objective Oriented Planning: One of the aspects on which there is consensus is the aim of mathematics teaching to develop certain capacities. Some of them are of a general nature (i.e. to calculate, deduce logically, autonomy in learning) others are specific (i.e. calculate percentages, solve first degree equations with integer coefficients. As the capacity becomes more specific, its action is more closely connected with a particular content. A planning that takes into account actions, behaviours or conducts which enable inferring and relating capacities (mental processes) in persons in a specific context of information or contents, falls within the framework of an objective oriented planning. In other words, this type of planning will base the sequence of decisions in terms of relating subordinate capacities not isolated from an information context and which have been defined with a certain degree of precision. For example, instead of affirming that the student will "know how to work with first degree equations", the aim of this approach will be to define the type of equations the student will be able to solve, under what conditions he would do it, and how would we be able to decide whether he is in condition of solving them. On the basis of these considerations the other decisions are organized.

Procedures for the formulation of objectives

have had a significant evolution and neither are they free of limitations. In past decades, objective were formulated from the perspective of teaching instead of from that of learning. That is, objectives were formulated in accordance with what the teacher would teach (i.e. show alternative procedures in order to solve first degree equation systems). Later on, objectives were designed in terms of the learning to be achieved by the student, tendency which still prevails. Other trends have supported formulation of operational, precise and behavioural objectives. The rational planning based on this approach may be seen in instruction designs and models. In contrast to the fragmentation of learning comprised in behavioural objectives with scarce command of definition, the expressive objectives and the conceptualization of open and closed targets, arise (Skager, 1978).

The advent of cognitivism, which upholds the importance of internal events in learning, in conjunction with open learning goals (reasoning of a higher order, capacity for obtaining, analyzing, synthesizing and evaluating new information, among others) requires undertaking a re-analysis of the planning models. This should be accorded priority as in the opinion of mathematics teachers, it is considered that (Olfos, 1987) "Planning is suitable for making clear in the mind of educators teaching aims and for monitoring the effectiveness of the teaching-learning process; however, it is not easy to define in terms of the behavioural objectives the higher cognitive and affective goals, and therefore they are not taken into account or evaluated. Definition of the objectives is a difficult task which cannot be realized by teachers within their time limit assigned to this function. Rigid designs are not in keeping with the current trend of offering a diversified teaching to meet the students' interests and needs" (p. 117). The aforementioned leads to the conclusion that "objective oriented planning is in crisis" (p. 130).

Within a more global scope, study programmes are plannings which have been criticized by professionals in different fields. However, there is a limited number of research which tend to empirically prove their observations.

One of these investigations was carried out by Riveros and Zanocco (1986). In it, with information taken from PER on minimal objectives, they prove that the teachers' interpretations of programmes allow them to carry out their teaching topics with independence, thus turning them into islands. "Reality shows that we are facing a programme with such a structure as to hint presentation of independent topics from each other, without transmitting the interrelations which should exist among them" (p. 78). In short, a teaching-learning process in keeping with a planning reflecting a rational sequence of decisions is not sufficient condition for the achievement of the desired learning. All planning should be a hypothesis requiring confirmation.

Disconnections between planning and reality have been a fundamental element in focusing attention in the classroom.

Especially, when observing that results of the school institution produce effects which are even adverse to those expected in spite of the various changes. Results which repeatedly confirm segmentation of the education system, an aspect opposed to the principle of equal opportunities, gave rise to the analysis of actions of the school institution which make up the school culture.

One of the main hypothesis was the existence of a hidden curriculum.

Classroom Interactions

Research concerning classroom aspects have been carried out with observation guidelines and by means of ethnographic studies. Through classroom observation, the effects of certain personality characteristics of the teacher which enable achieving an affective atmosphere that stimulates efficient learning and determines certain types of interaction and communication have been noted. For example, through observation of 152 basic education teachers, Arancibia and Roa (1986) reached several conclusions concerning what takes place in the classroom. Among the most important are:

- In relation to the motivation variable, the teacher generally makes scarce use of motivating techniques. It was observed that teachers were more concerned with carrying on with the subject than with what the students learned; it has also been noted that teachers do not explain the meaning of the subjects, turning learning into something mechanic and remote from the childrens' reality, with an excessive use of the negative support.
- According to the communication modality established and the affective classroom environment, very different behaviour patterns are observed in children. "When the teacher is dominant, irritable, not too cheerful, rigid, impersonal, formal, loud-voiced and impatient, the prevailing atmosphere in the classroom is tense, uncheerful, competitive, uncommunicative and pupils are very formal, passive, fearful and submissive... When the teacher is active, cheerful, flexible, calm, of a good disposition, enthusiastic and is motivated

by his teaching, is good natured, stimulating, maintaining adequate pupil-teacher communication, without serious disciplinary problems, there prevails a sense of comradeship and cooperation among the children and they are active, participative, showing much initiative, are flexible, self-assured, expressive, creative, enthusiastic to learn" (p. 66).

On the other hand, ethnographic studies have reconstructed relations between the actors of the teaching-learning process of some basic schools. The purpose of this has been to search for the internal logic of everyday relations. For example, López and others (1984) have characterized the teaching practice as a ritualized activity, centered in fulfilling a programme more than in promoting learning. In this ritual, the pupil learns to repeat, to follow instructions and to find the answers the teacher expects through a guessing process. Often, the teacher uses irony and ridicules children as a mechanisms of control. Pupils show the teacher their work, who decides whether it is good or bad, thus generating dependency and passiveness in the children who do not dare take initiatives for fear of making mistakes. Children tend to avoid asking questions and when they do, they are generally of a formal nature: Did we miss a line?

A hidden curriculum

In short, this type of studies have lead to the assumption that educational practice upholds a hidden curriculum. That is, through social interactions different learnings are acquired in respect to those explicitly fostered. Through these practices, among others, the following are transmitted: idealizations, which are difficult to relate to the world's reality, intellectual work which is valued more than manual tasks, perceptions affecting children's motivation for their self-development and contents which are being treated as universal values (Montero, 1987). Observations on activities outside the classroom, registries of meetings and teaching equipment, analysis of documents and textbooks on the ideology of school, and questionnaires and in-depth interviews with teachers have served as basis for the study of school cultural transmission. Interactive relations among teachers, among pupils and between teachers and pupils produce specific and varied contributions to learning and feelings (Filp, Cardemil, Espinola, 1987). These interpretations have also been consistent with other methodological approaches which comprise indicators of teacher efficiency and take into account children's perceptions (i.e. Filp, Cardemil, Valdivieso, 1983).

On the other hand, various studies (i.e. Montero, González and Rojas, 1983; 1985a; 1985b; 1987; González and others, 1987; Rojas and others, 1987) have revealed the importance of the students' subjective perceptions in regard to their behaviour and feelings towards mathematics learning. They refer to the approach on the Attribution Theory. In accordance with this approach, behaviour and feelings towards the subject depend on the causes the individuals attibute to their performance in an event or situation. For example, students who know they are successful in a mathematical learning situation tend to attribute it to their effort more than to their ability as an explanation of their good performance (Montero, González and Rojas, 1983). Various facts lead students, in a given event or situation, to attribute to one cause and not to another their mathematics teaching and/or learning. Among them social rules, the students' experience, efforts, the kind of situation and stereotypes may be mentioned. Specifically three sources of information have been pointed out as forming the basis of casual attributions (Kelley, 1967, 1973) and their relevance in mathematics learning has been confirmed: persons, events and time. In relation to these sources, consensus, consistency and differentiation have been defined.

Consensus relates perception of the student's performance in respect to most of his peers (whether it is the same or different).

Consistency refers to the degree of congruence between the student's performance faced with a situation in respect to the history of his past performance in a similar situation (high or low); differentiation relates to the degree of congruence between the perception of performance in a given situation with the history of success in respect to performance situations in the past (the same or different). This type of information also relates to the properties of casual attributions and to psychological consequences. In general, the various relations of the attributive model have been studied within the context of mathematics teaching and several of its results have been implemented.

One of the Theory's application was that of elaborating a theoretical construction of Self-concept in order to study mathematics (Montero, 1988). In that construction, together with defining variation sources for self-perception concerning mathematics learning, a set of hypotheses were established based on the Attribution Theory to explain the variabilities in the implications of self-conception. Based on these ideas, two instruments were constructed comprising a

high percentage of common items to deduce self-concept in mathematics education. They were applied to 409 middle level pupils and to 508 students of engineering of the Universidad de Santiago de Chile (USACH). The majority of the hypotheses were confirmed (Montero and others, 1988; Caamaño, 1988). Another of the theory's application referred to a study on relations between some variables of the mathematics class and the attributive variables (Gutierrez, 1988). These and other applications would not only enable re-interpreting various motivational problems of mathematics education but might also contribute to the achievement of some priority goals of its teaching. To illustrate this, one may mention that present results have been convergent and supplementary to those intuitions proposed for the attainment of self-guidance in mathematics education (Montero, 1988).

In general, implications of social interactions and the importance of the subjective perceptions should be present in the analysis of all variables affecting the mathematics teaching-learning process. This should also be so, especially, in plannings, educational media and teachers. In no way, should this be an action to hinder methodological proposals to facilitate specific mathematical learnings, but on the contrary, this background information should be considered as an additional means for its effectiveness. For example, the proposal of a step by step treatment to problem solving (Cofré and Tapia, 1986), overcoming methodological strategies deemed inadequate (Riveros and Zanocco, 1986) or overcoming the serious deficiencies of textbooks mentioned by Pérez (1987) related to the low taxonomic level of the mathematical learning activities, should be considered in the light of identified background concerning social interactions and the importance of the perceptions of the various actors of the teaching-learning process.

In short, various research with different methodological approaches, stress the importance of social relations and of subjective perception in learning. In other words, there is significant evidence that educational innovations should take into account both the students and teachers' social interactions and perceptions. Their inclusion in planning and in the implementation and evaluation of mathematics teaching and learning, seems to be a highly necessary condition to overcome, in part, the resistance to change of the cultural school system mentioned above (Montero, 1986). Its coherent incorporation is a current challenge, requiring deeper investigation, and for us it is a new significant challenge.

Final comments

The purpose of this paper has been to present an overview of our national reality as concerns mathematics education at its basic and middle levels. Its ultimate intention is to serve as a means of reflection and useful discussion oriented towards the development of a national thinking in the field. Its organization was based on two central concerns. The first, was to find out the subjects to be included in the school curriculum and the reason for it. Likewise, following this line of concern, the level of achievement of the subject matter was investigated. The second,comprised the teaching-learning process. Based on these concerns, empirical research and relevant works undertaken in the past ten years were reviewed.

These documents revealed different perspectives which require being analyzed and studied in depth. On the other hand, from this analysis goals, contents and methodological suggestions of a main core, to form the basis of a proposal for the improvement of mathematics teaching should emerge. On the other hand, research problems and tentative priorities should be identified, recommendations of which should be understood and considered by different social agents concerned with mathematics teaching.

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OREALC ACTIVITIES

REGIONAL NETWORK FOR THE TRAINING OF PERSONNEL AND SPECIFIC SUPPORT IN LITERACY AND ADULT EDUCATION PROGRAMMES –REDALF–

International Literacy Year (ILY)

A. Evaluation of the national literacy experiences

This regional activity is in its preparatory phase, within which conditions for the implementation of the evaluation process are being created. The following activities have been carried out in this preparatory phase:

- OREALC has submitted this activity to the consideration of the Ministries and Secretariats of Education of the countries and to REDALF's focal institutions, stressing the fact that development of this task is one of the mandates of PROMEDLAC II.
- Establishment, in several countries, of a national team responsible, among others, for making available information to the participating national institutions on the objectives and pertinent activities involved.
- OREALC has distributed the evaluation instruments in their revised version: the methodological guide and the forms printed as leaflets. The methodological guide, which enables structuring the evaluation, comprises the following elements: i) a first part, aimed at informing and motivating, in which the reason for carrying out the evaluation, the approach used, and why and what is evaluated is pointed out; ii) an operative part, showing how to evaluate and defining stages and activities as well as responsibilities; iii) a third part, presenting supplementary criteria on analysis and appraisal for judgement.

The form, applied on the basis of a questionnaire, (self-administered), comprises two parts: the first, is designed for data gathering on the general characteristics of the institutions, such as name, type, interests and effective literacy efforts undertaken, relation with the State, others; the second, is designed to gather data on the various programmes of each institution. Each programme is described according to aspects such as objectives, strategies, organization, learning process, results, success and errors, facilitating and hindering elements, others.

In addition, a guide is attached to the form in which criteria for its application is offered. (For more detailed information: see issue Nº 16 of the Bulletin).

B. Publications:

Final Report of the Regional Technical Consultation held in Havana

During the last four months of 1988 this document was published and distributed among the countries of the region. The report relates to a meeting organized by OREALC in collaboration with CREFAL and the Ministry of Education of Cuba. This meeting aimed at:

- Analyzing illiteracy and literacy in the region, in the context of the critical social problems and of the population needing priority attention;
- Proposing operational strategies with a view to the adequate preparation and holding of the International Literacy Year. (ILY).

It was deemed advisable for the ILY to focus attention on the following aspects:

- close relation between illi-

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teracy, poverty and ethnic condition;
- the role played by basic education and the neeed to extend and improve its quality;
- development of adult education;
- the importance of post-literacy; and
- the concept of life-long education, as a unifying principle of the educational experiences.

The development and the results of the Consultation constitute the first step to determine the nature of the International Literacy Year. In particular, there was interest in making explicit cooperation strategies and mechanisms; the encouraging fact of the importance accorded by the Group of Eight to the educational achievements in relation to national development, political democracy and social equality was also emphasized.

A set of proposals for action were elaborated with a view to giving the International Literacy Year an operational nature, in particular as concerns research, systematization and evaluation, training of educators, teaching materials and educational means, educational continuity in the system, and others.

In relation to the operational strategies, it was proposed that the national plans of action for the International Literacy Year form part of the National Plans of Action formulated within the framework of the Major Project in the Field of Education in Latin America and the Caribbean, according to them principles such as flexibility, diversification, multisectorality, descentralization and multidisciplinarity. In addition, it was deemed advisable to establish national committees for the International Literacy Year and that the participation of all the social efforts be promoted.

In regard to training, materials and communication media the following recommendations were adopted:

- Develop diversified strategies for the training of literacy personnel on the basis of diagnosis studies on the theme and gathering the previous experience and expectations of the literacy personnel and of the learners;
- Incorporate adult education components in the training plans for teachers, professors, and those holding a degree in education;
- Establish a programme for the follow-up and evaluation of the programmes on literacy training;
- Include in the training actions initial and in-service life-long activities, as well as incorporate the distance education modality;
- Develop diversified teaching materials suitable to the different cultural contexts, as well as encourage participation of recipient groups in the production of their own materials;
- Generate social spaces to recover history, culture and technology as live reference for adult learners;
- Implement programmes for the study and experimentation of literacy, post-literacy and basic distance education methods;
- Include middle and higher level systematic training in educational communication;
- Support rural press and train popular organizations in the production of their own handicraft communication media;
- Sensitize public opinion through thoughtful communication actions that reflect an adequate view of the illiteracy problem.

Brochure containing recommendations and suggestions for the International Literacy Year

The brochure on the ILY, containing suggestions for action, is being distributed to the countries. This is a CREFAL-OREALC Spanish-English coedition. In it the proposals and suggestions for action formulated by the participants of the Regional Technical Consultation held in Havana, preparatory to the ILY are stressed. It provides a conceptual and operative framework in relation to the activities to be carried out in 1989.

C. Meeting on the International Literacy Year held at the Unesco Headquarters in Paris

From 5 to 7 December 1988 a preparatory meeting of the International Literacy Year was held at Unesco Headquarters in Paris; it was attended by members of the ILY Secretariat, specialists from headquarters from the division for adult education, representatives of the Standing Committee of NGOs and specialists in adult education from the Unesco Regional Offices –UNEBRAS– (Arab States), ROEAP (Asia), BREDA (Africa) and OREALC (Latin America and the Caribbean). During this consultation the activities foreseen and programmed by each regional office were submitted and analyzed. In OREALC's case, the exposition presented referred to the Major Project in the Field of Education, and particularly to the PROMEDLAC II goals and the REDALF activities. Likewise, the recommendations of the Regional Technical Consultation preparatory to the ILY (Havana, May 1988) were discussed; activities undertaken during the year and those foreseen for 1989 were detailed; it was stressed that in the next

REDALF technical meeting (III Meeting, Cali, May 1989) the main national and regional activities for 1990 will be defined. In addition, discussions dealt with the draft Plan of Action for mass reduction of illiteracy before the year 2000. Among the issues analyzed the following should be emphasized:

- Acknowledgement of the relevant role played by the Unesco regional offices and the need to link ILY actions with the various regional projects being implemented or under preparation in Africa, Asia, Latin America and the Caribbean and the Arab States. The need to recognize the different levels of work (national, regional, international) as well as the relation between them was emphasized.

- Encourage the idea of the mass reductions of illiteracy rather than that of its eradication before the year 2000; likewise it was noted that the main actions towards this end are of the competence of Member States.

- The need to increase the concerted action with other U.N. agencies, NGOs and foundations. As concerns Unesco, the role played by the Office for Public Information (OPI) and the coordination of the sectors for Culture and Communication, as well as of the Secretariat for the World Decade for Cultural Development were stressed.

- Determine the draft project, detailing stages and including evaluation criteria and mechanism for each of them; some participants suggested implementing a first stage to coincide with the Unesco Third Middle-term Plan.

Field: Literacy

Line of action: Technical Meeting

Ibero-American Technical Consultation on Functional Illiteracy
(Salamanca, Spain, 17-21 October 1988)

Understanding of what is functional illiteracy is a requisite when facing literacy and illiteracy. In addition, this continues being a theme which has been scarcely studied in its cultural and social connotations. In this conceptual context, the meeting convened in Salamanca proposed analyzing functional illiteracy as a product of societies which, when modernizing, leave behind vast sectors of the population.

The meeting was sponsored by the OEI and OREALC, in collaboration with the "Diputación de Salamanca" (Salamanca governorship and the Salamanca Foundation). It convened 17 Latin American and Spanish specialists on literacy, one OEI representative and the OREALC regional specialist in adult education.

The meeting's objectives were to characterize functional illiteracy in Latin America and Spain and to propose strategies and measures of possible action taking into account both the Plan of Action to eradicate illiteracy before the year 2000 and the celebration of the International Literacy Year.

As a first step the meeting critically analyzed the definition of functional illiteracy set forth by Unesco in its Twentieth General Conference (1978). Based on this, the consequences of this phenomenon were outlined, in particular the difficulties encountered by the incorporation of illiterates in the world of work and their participation in the cultural life and in social organizations. Likewise, there was agreement concerning the fact that functional illiteracy affects both the Third World countries and those of advanced economies. In both cases, the reasons for this converged in relation to the low quality of the education offered in schools in conjunction with other social factors of macrostructural level.

The meeting agreed that Europeans have reflected on illiteracy not based on their own experience but on illiteracy in their colonies or former colonies. Later on, they learned of the imported illiteracy of their former colonies or of Southern European countries. In both cases, illiteracy was associated with under-development and the solution to the problem was faced with an approach of an assistance nature. Only in past years Europe has discovered its native illiterates, recognizing that this fact does not serve for a global analysis of the causes and necessary strategies for solution. In the particular case of Spain, there exists a historic illiteracy, dating to a time in which schooling was very incomplete. During the last twenty years to date, the Spanish school continues producing a percentage of young people who could be considered functional illiterates.

A reconceptualization of functional illiteracy that would consider both its situational nature and its relation with the social change, as the need to overcome linguistic literacy were proposed. Together with the written language there is need to codify and uncodify the static and mobile images forming part of the global communication system. On the other hand, it was considered that illiteracy should be analyzed as a phenomenon inherent in the oral tradition societes and not only as a backward social factor. To this effect, it is important to recognize and recuperate the "popular functional literacy", present in the communities through multiple forms of knowledge.

In addition, literacy programmes should contribute to preparing for work and, in particular, promote productive autonomy of management and organization of the informal sector of economy. The above assertion is based on the fact that in the majority of the Latin American countries, approximately 60% of the urban functional illiterates are employed in informal economic activities.

Among the recommendations the following outstand:

- Promote national exchanges to enable a permanent dialogue between adult education and primary basic education and their qualitative adequacy, specifying the organic link between education and work, methods and techniques for foster reading and writing and utilization in the education process of the resources available in the environment and the community.
- Seek and consolidate modalities and mechanisms to link universities with adult education.
- The main recommendations of the consultation emphasize practical-operative aspects. It was deemed advisable to request the auspices of the Government of Spain, Unesco and OEI for the creation of an Ibero-American Centre for Adult Education Research and Development –related to REDALF and CREFAL– to implement various horizontal cooperation fields suggested at the consultation, applying training of personnel and publishing aspects. This body could be associated with a regional project on technical cooperation. Likewise, it was suggested to sponsor research dealing with priority fields linked to the consultation's theme. Another aspect meriting special attention was that of rescuing and projecting the rich experience as concerns publishing, particularly to serve the reading levels of specific age groups (children and adults), after carrying out pedagogical measurement and research.
The Spanish participants suggested that several of the recommendations should relate their implementation to the V Centenary of the Meeting of Europe and America, for whose celebration the establishment of institutions and allocation of special funds have been foreseen. In Salamanca and Badajoz there was evident interest in learning more and coming closer to Latin America and in giving this celebration an importance to excel the colonial and "discovery" aspects it has been traditionally connected with. Thus, information was provided on the forthcoming of an international magazine on adult education to be published in Salamanca, one of whose first issues will be dedicated to the documents and results of this technical consultation.
- In addition, elaboration and implementation of an Ibero-American Technical Cooperation Project in the field of adult education was also recommended. This project should fall within the goals of the V Centenary, with the aim of supporting fulfillment of the technical consultation's recommendations and placing special emphasis in the training of trainers.

Field: Literacy

Line of action: National technical meeting

National Seminar in Ecuador

This OREALC sponsored and assisted Seminar on the planning of the National Literacy Campaign was held in Quito, Ecuador, from 18 to 23 September 1988, and aimed at the elaboration of the theoretical, methodological and operative outlines for undertaking this activity.

It was attended by 45 representatives of public and non-governmental bodies, 2 national managerial staff of the National Literacy Campaign, 6 national advisors and 5 international advisors (Ministries of Education of Cuba and Nicaragua, CELADE, Unesco). The meeting enabled knowing and discussing the general policies of the campaign and the methodology for the promotion and mobilization foreseen; in addition, the work was carried out with personnel with experience in literacy, and working teams were organized concerning didactic and methodological material, training, organization, follow-up and continuity.

In the Seminar's supplementary working sessions the Operational Plan of the National Literacy Campaign was elaborated; available provisional data on the illiterate and student population were coordinated; the campaign's goals were determined; operational agreements were concluded, such as the starting dates of activities and the impact on the school year; levelling modalities for students and some organizational criteria at national, provincial and cantonal levels were specified. In addition, discussions dealt with strategies related to the training of literacy personnel and to post-literacy actions.

The National Literacy Campaign is an initiative accorded priority attention by the national government, conceived as a mass and mobilizing action based on the participation of secondary students. It is expected that 400 thousand Spanish-speaking persons (110 thousand of urban and 290 thousand of rural areas)

will be made literate, mobilizing some 110 thousand students responsible for literacy, representing 40% of the universe. Furthermore, participation of the student population is voluntary. Parallel to the National Literacy Campaign a bilingual-intercultural programme will be carried out (MEC-CONAIE agreement), coordinated by indigenous leaders and aimed both at adults and children of ethnically differentiated communities. This programme, although having some common elements with the campaign, is interested in formal cultural and mother tongue education with a view to introducing learners to the national language and culture through a revaluation practice of their ethnoculture.

Among the recommendations proposed in the Seminar, the following should be emphasized:

- The need to commit all the education sector in the campaign, even involving universities and non-governmental organizations.
- Adequately train literacy personnel.
- Develop differential education and literacy actions of the indigenous population.
- Involve television, press and radio, as supporting elements of a campaign whose characteristic is that of a mass and mobilizing nature.
- Foresee that activities are continued through post-literacy actions, with the participation of the public sectors such as labour, health, social welfare, agriculture, and others.

Field: Literacy

Line of action: Technical assistance

Mission to Spain

This mission, carried out by the regional specialist in adult education from 7 to 22 October 1988, comprised many objectives and activities: a) academic coordination of the Ibero-American Technical Consultation on Functional Illiteracy, jointly sponsored by OEI-OREALC (Salamanca, 17-21 October); b) participation in the V Ibero-American Meeting on Adult Education presenting the theme "University and adult education in the Major Project in the Field of Education" (Salamanca, 7 October); c) exposition on the Major Project delivered to the participants of the Ibero-American Course on Education, Universidad de Educación a Distancia de España (Madrid, 11 October); d) round tables on the situation of Latin America and adult education with teachers and students of the Universidad de Extremadura (Headquarters in the city of Badajoz, 13-15 October); e) conference at the "Lazaro Ralero" Tribune for Adult Education, of the Salamanca Governorship on the Major Project in the Field of Education in Latin America and the Caribbean and Adult Education (Salamanca, 18 October); f) working sessions with officials of the OEI on joint OEI/OREALC activities (Madrid, 22 October).

The missions enabled presenting institutional and regional progress in the field of adult education within the framework of the Major Project in the Field of Education to various audiences in three Spanish cities, as well as learning the reality of that country especially at the university level. Likewise, cooperation links with OEI were strengthened as concerns adult education. On the other hand, the meeting on functional illiteracy made it possible to face from different experiences and contexts –as those of Spain and the Latin American countries– functional illiteracy, which is an important but scarcely studied theme as concerns its cultural and social connotations.

Field: Literacy

Line of action: Technical assistance

Mission to Venezuela

This activity aimed at advising on the VII Meeting on Evaluation of the National Literacy Plan of Venezuela. The mission was carried out from 5 to 13 September 1988 by an international consultant assigned by OREALC at the request of the Venezuelan authorities. The following activities were carried out:

- Presentation of a paper on "La evaluación en procesos de alfabetización" (Evaluation in literacy processes);
- Advice provided to the working teams in relation to the analysis of the meeting, in particular themes such as coordination and institutional integration, promotion and dissemination, methodological pluralism, voluntary personnel, incentives for participants and literacy personnel, supervision, and others were discussed;
- Participation in the presentation and analysis of a video tape on the Teleconference, in which expositions given by specialists of Colombia, Costa Rica, Mexico and Peru on illiteracy and ways to solve it in those countries were shown;
- Advice provided to groups who analyzed the draft National Literacy Plan; specifically, it was proposed to introduce a chapter on the current situation of illiteracy, set forth the specific objectives, detail the strategies for the mobilization of volunteers, and attain a more adequate utilization of mass communication media.
- Support to the team of the Adult Education Directora-

te in relation to the evaluation of the efforts carried out by the literacy personnel, and in particular, to aspects connected with the application of the Methodological Guide and the Questionnaire systematizing the work of the institutions.

Field: Literacy

Line of Action:Technical assistance

Technical assistance mission to Nicaragua

The mission to Managua, Nicaragua was sponsored by the Statistical Office of the Unesco Headquarters in coordination with OREALC. It was carried out by two international consultants during November 1988. Its aim was to design a sample of areas for the Ministry of Education to realize an extensive study or investigation on the present situation of illiteracy in said country. The population under study comprises both sexes from 10 to 49 years of age and with less than fourth grade of primary education. Due to the fact that this group is a part of the population, a first stage will carry out the obtention of socio-demographic data of all those alive taken from a not trustworthy sample of 10.000 homes. Furthermore and for different reasons, among them a situation of emergency affecting the country, the survey will be limited to the Pacific Zone integrated by three development regions.

The design of the sample stands on a sample frame dating from 1982, consequently, internal movements of the population may well have altered the present space distribution of said population beyond an expected situation.

The mission report emphasizes the need of a careful supervision at all stages of work. Likewise, the tabulated results will be checked with available statistical data so as to verify its validity.

Field: Postliteracy

Line of Action:Teaching material

Methodological guide on reading material production for adult new-readers (Project in collaboration with the Spanish Government)

The elaboration of this methodological guide, destined to central and peripheric education specialists in charge of postliteracy, has been continued.

Due to the strategic role performed by didactic material in postliteracy, it is hoped to count with a training instrument that will make learning possible for classroom level educators.

The guide has been structured according to the 'learning by doing' principle through which the functions performed by the texts as well as the process through which they are produced, is clearly understood. Relationships are established between research and material elaboration and, likewise, mechanisms are proposed so as to achieve active and participative material.

The guide is still in the revision process.

Field: Adult Education

Line of Action: Publications

Training of Parents as educators of their children. Final Report Regional Technical Seminar (Bogota, Colombia, 26–30 October, 1987)

The Final Report of this Technical Seminar was published by the end of 1988, in which the dual process observed in Latin America and the Caribbean characterized by a growing social and educational democratization and by a serious economic crisis affecting this development and altering the traditional family structure, its interpersonal relationship guidelines, its components and its social development possibilities, are emphasized. This situation is aggravated by the limitation of conventional educational systems and, in particular, by its coverage and quality of the teaching process.

These conditions have a particular influence on children of deprived groups and imply, among other conditions, a high rate of child mortality and morbidity together with school dropout and delay. All the elements described suggest the alternative that all children and specifically at an early age, can be attended by educational programmes within their own environment and by adults –parents and teachers– offering them a warm and secure relationship, transmitting them trust and a sense of autonomy.

The publication reiterated as its central objective, the need to analyse the training of parents as educators of their own children and to formulate orientations to Member States of Latin America and the Caribbean for defining methodological strategies in this area. In particular, get to know experiences and identify innovations related to the training programmes of parents, propose socialization mechanisms and make possible a more effective and conscious participation of parents in the education process of their children.

Field: Adult Education

Line of Action: Publications

Approaches and experiences on evaluation of adult education

By the end of 1988, the OREALC-CREFAL co-edition

of the book "Enfoques y experiencias sobre evaluación en educación de adultos" (Approaches and experiences on evaluation of adult education) presenting part of the themes and discussions that took place in the Latin American Seminar on Evaluation of Adult Education Programmes, organized by the Fundación MOBRAL (at present, EDUCAR) and Unesco-OREALC (Sept. 1983) was carried out. The book's material was published by MOBRAL in 1984 (Portuguese ed.), Rio de Janeiro). The re-edition seems justified, as different positions on adult education evaluation are presented and by its controversial nature, in particular, it demonstrates the usefulness of the information obtained through these evaluation processes. Moreover, though the practice of adult education shows an important progress, the discourse and practice of the evaluation of education actions with the adult populations, has not been as successful.

The book is divided into three parts. The first, of a theoretical nature, analyses adult education at the beginning of the 1980 decade; the second, theoretical as well, systematizes the evaluation approaches and trends of adult education; the third part presents evaluation experiences in adult education programmes and projects.

Interesting suggestions can be found in this text, such as the relation between evaluation, control, power and legitimizing-qualification; it shows the process of evaluation of non-formal education programmes and provides an explanation of the meaning of participative evaluation.

Field: Adult Education

Line of Action: Technical Meeting

III REDALF Technical Meeting (Cali, Colombia, 27-31 March, 1989)

The III REDALF Technical Meeting is being prepared and will be convened in Cali, Colombia, on 27 through 31 March 1989. The central objective of said meeting, will be to analyse and evaluate activities carried out for the fulfilment of the II Operational Plan of the Network and to define the III Operational Plan 1989-1990, taking into due consideration the priorities of the PROMEDLAC II Meeting (Bogota, 1987).

Among the specific objectives, the meeting will consider the following:

- provide and promote the exchange of the most significant experiences elaborated within the framework of REDALF;
- define a Regional Plan for the International Literacy Year;
- analyse the organization processes of national networks, as well as the strategies for their constitution;
- foresee trends and priorities of adult education in the region;
- present and project the following on-going REDALF actions: evaluation of national literacy programmes; regional research; horizontal co-operation; extra-budgetary projects.

The meeting has been jointly organized by the Unesco Regional Office for Education in Latin America and the Caribbean (OREALC) and the Colombian REDALF whose principal institutions are the Universidad Pedagógica Nacional de Bogotá and the Dirección General de Alfabetización y Postalfabetización of the National Ministry of Education in Colombia.

Official representatives of the national networks (one for each Member Country), from CEAAL, CARCAE, CREFAL and OREALC as well as specialists invited in their personal capacity, members of the organizing committee and observers from the host country.

This encounter will allow the evaluation and the planning of the REDALF actions and, consequently, will contribute to the fulfilment of the Major Project in the field of Education in Latin America and the Caribbean in due understanding that the regional networks play a strategic role in the achievement of its specific objectives.

Field: Adult Education

Line of Action: Horizontal co-operation

Traineeship in Colombia

During October 1988 (17-28 October) a traineeship was carried out in Bogota and Cali (Colombia) through which the participants could learn some Colombian experiences in the field of adult education. This traineeship was organized by the Ministry of Education of said country and the Universidad Pedagógica Nacional and sponsored by OREALC. Four participants attended from Fundación Educar (Brazil), Ministry of Education (Costa Rica), National Network of El Salvador (El Salvador) and the Ministry of Education of Peru.

This activity is inscribed once again, in the idea of exchanging experiences among the countries of the region.

Field: Adult Education

Line of Action: Technical Assistance

Mission to Mexico

A technical assistance mission to CREFAL was carried out by the regional specialist in adult education answering a request made by the Directorate of said institution. The objective was to train per-

sonnel and to work in conjunction with the authorities on the 1988/1989 PAD. The training programme lasted five days and included subjects such as: Unesco, the Major Project of Education and REDALF programmes and projections; Adult Education in the region; Latin America: economic and socio-educational diagnosis. Likewise, other activities responding to the 88/89 biennium such as the regional research on BAE (Basic Adult Education); literacy programme evaluation; prospective study on adult education applying the Delphi Method; production of an interactive video on the handling of literacy statistics; publications (ILY leaflet and a book on postliteracy and work); co-operation and technical assistance to countries; REDALF activities 1989.

It was agreed to specially emphasize preparatory activities of the ILY, as well as literacy programme evaluation. Likewise, CREFAL will take charge in 1989, ot the Proposal on the Training of Trainers Regional Plan. Finally, on the base of interviews and observations, an organizational diagnosis on CREFAL was elaborated allowing, thus, to detect achievements obtained as well as problems posed and then propose solution strategies specially referred to technical assistance to countries of the region.

Field: Education and Woman

Line of Action: Research/Studies

Regional Workshop practical guide on civic education programmes for the peasant woman, her education and participation in the socioeconomic and cultural life of the community

A Regional Unesco-UNICEF Workshop on civic education programmes for the peasant woman is foreseen to take place in Bolivia during the first semester of 1989. This meeting is aimed at the elaboration of civic education programmes for women on the base of the systematization of experiences in this area. A methodological guide was designed during the last four months of 1988 as support to the workshop. The first version of this document is divided into three parts: theoretical background information, organizational criteria in relation to the workshop and the guide proper.

The first chapter analyses the role of civic education, in particular those programmes destined to women. As background information, a sketch is made of the institutionalization of human rights in history and, specifically, women's rights. It also presents the social, cultural and political inequality encountered by the Latin American female population describing, as well, objectives and contents of some traditional civic education programmes of the region and posing the need of redefining them in the light of life long education and also of its integration into multi-purpose education programmes. Finally, the concern about civic education for women is articulated under the proclamation by the United Nations of the World Decade for Cultural Development (1988-1997). In this sense, civic education is assumed as "cultural action", that is, as a critical identification and reinterpretation of culture itself. Some criteria on the workshop organization as well as for the selection of participating institutions and programmes, are presented in the second chapter.

The third chapter introduces the guide in which systematization and evaluation of civic education programmes are given, as well as bases for the elaboration of new strategies in agreement with the Latin American and Caribbean socio-cultural reality.

Field: Multi-purpose education

Line of Action: Research/Studies

Multi-purpose education: Construction of a socio-pedagogic project for rural communities

During the last four months of 1988 a study reiterating multi-purpose education as a proposal of the efforts carried out within the framework of the Major Project to revitalize school through its integration in community life, was elaborated.

The document systematizes and re-elaborates reflexions produced in the Regional Technical Seminar on the Training of Multipurpose Educators (Paipa, Colombia, November, 1985). Likewise, it takes along and complements ideas contained in other books published by OREALC on the same subject, such as "Educadores polivalentes. Alternativa educativa para comunidades rurales" ("Multi-purpose educators. Educational alternative for rural communities") and "Bibliografía anotada sobre educación polivalente" ("Written down Bibliography on multi-purpose education").

The work conceptualizes multi-purpose education describing its pedagogical components as well as the necessary policies and strategies for the achievement of this model. This work presents and analyzes experiences presented in the Paipa Seminar.

Multi-purpose education is characterized as an educational project in the construction stage, in the measure that it has been destined to be developed starting from the action experiences and by the information generated through them. Multi-purpose education intends in a second instance, a project defined as socio-pedagogic, as it is constructed articulating definitions of diffe-

rent levels, from the relation between education and social development, going through institutional precisions until reaching definitions of the pedagogical work. In this sense, the concept of multi-purpose education delivers a project destined to articulate education with the integral development of rural communities; it represents a particular understanding and comprehension of the educational needs of the rural community and an optional line of action to satisfy them, rescuing and modifying the school institution. At the same time multi-purpose education assigns participation a central role transforming the community itself into the principal actor, making real in this manner, the principle of equality of educational opportunities upheld by the Major Project.

Starting from the multi-purpose educaction idea, different policies and general outlines can be derived.

Thus, multi-purpose education implies the adoption of a series of coherent and operative criteria springing from definitions upholding a change in pedagogical practice institutionalized in present rural schools. These strenght-ideas are referred to the type of learning promoting: learn but being responsible for what is learnt; learn through teaching; learn to learn rescuing and achieving autochthonous modes of learning; learn by recuperating and revaluing their own culture.

Field: Education and Woman

Line of Action: Special projects

Literacy and civic education of peasant women in Ecuador and Peru

During the latest months of 1988 the project Literacy and Civic Education of Peasant Women in the Ecuadorean and Peruvian "sierras" through agreement with the following institutions, was carried on CEDIME (Centro de Documentación e Información de los Movimientos Sociales del Ecuador), Ecuador; Asociación Peru Mujer, CENDIPP (Centro de Investigación y Promoción Popular Peru), and Dirección de Alfabetización del Ministerio de Educación del Perú.

The main objective of the project is to diminish illiteracy of peasant women developing promotion actions, bringing conscience awareness of the problem and an organization that will enable them to discover their rights and civic duties. According to this approach civic education is conceived as a cultural action, as a holistic process within which a more comprehensive vision of ethno culture with a redefinition of political, social and economic rights, are integrated.

The project has developed actions in several areas, particularly studies to determine needs, production of education material and has searched and trained peasant women leaders.

Preparatory training workshops destined to female leaders were carried out between September and October in Ecuador and Peru. These encounters presented some of the educational textbooks (cartillas) elaborated for participant institutions. Another important activity carried out in this last stage, was the preparation of publications to be disseminated as information and promotion of the project in the region.

Field: Woman and Education

Line of Action: Special projects

Literacy and labour training of the indigenous Emberá woman

A project oriented to teaching reading and writing to adult Emberá women in their native tongue as well as in Spanish, was carried out during the last four months of 1988, in the Province of Darien, Panamá. It included the training for the development of non traditional productive activities and the production of graphic material in Emberá and Spanish aimed as support to the mentioned activities.

This project was initiated with a study of the target population needs, especially concerning education, health, housing and nutrition.

Field: Bilingual education

Line of Action: Research/ technical assistance

Mission to Ecuador and Peru

The associated expert assigned to OREALC, carried out a study and technical assistance mission to Ecuador and Peru during 7 November and 9 December, 1988, continuing the diagnosis study on bilingual education in Latin America, developed within the framework of the preparatory activities of the Regional Bilingual Intercultural Education Programme.

Within this context, field work was initiated in Ecuador, gathering primary and secondary data in Quito and mountain and jungle zones (Shuar area); furthermore, the second part of data collection in Peru, was carried out in the city of Lima, in relation to educational programmes in the jungle and to the training of bilingual teachers in the same zone (Iquitos).

Field: Bilingual Education

Line of Action: Technical Assistance

Technical assistance to the National Seminar of Curaçao

By request of the CARCAE (Caribbean Regional Council

for Adult Education) representative before the REDALF, an agreement was established between OREALC and KOMAPA (Komishon para Maneho di Papiamento) in which the former institution would send a specialist, within this context, to the meeting on "Idioma, enseñanza y desarrollo nacional" (language, teaching and national development) that took place in Curaçao during 30 October and 5 November, 1988.

The so-called Netherlands Antilles, and among them, Curaçao, have been deeply influenced by European colonial enterprises. Since the XVI Century the islands have changed from one power to another, until only recently they have been able to obtain a relative political-administrative autonomy.

Within a plurilingual and multicultural context instilled by the colonial domination, Papiamento, the creole tongue of Curaçao Bonaire and Aruba, became the lingua franca that permitted communication among the different sociolinguistic groups inhabiting the island, as were the Africa slaves, the Portuguese, the Dutch and the Spaniards. In contrast with most of the languages used in the Caribbean as well as the indigenous Latin American languages, Papiamento, with the passing of time, became the accepted national tongue and reached a rather high prestige within society until it became, during the last decades, a symbol of the Netherlands Antilles in their search for a national and cultural identity. It is believed that, Papiamento is the mother tongue of 77.7% of that area's population while Dutch is spoken by only 8%, English holds a 14% and Spanish a 2%. Nevertheless, Dutch is used in systematic education, bringing, for this reason, grave consequences to the normal development of the educational system, particularly in primary school, where the majority of children present consecutive repeating problems. Within this context, the Curaçao Government organized a national meeting inserted in a linguistic and cultural revalorization of the vernacular tongue as fundamental basis for the reformulation of a new educational planning. In this sense, the Seminar took as its main objective, the generation of discussions about needed changes in the island's educational system, related to the introduction of Papiamento as study and instruction tongue. The central themes of the Seminar were: linguistic policy and planning; acquirement and teaching of the mother tongue; acquirement and teaching of a second tongue; innovation and strategies of innovation in the educational system.

The associated expert assisting as the OREALC representative, participated in the meeting and presented a paper, took part in television debates and interviews and initiated preliminar contacts with KOMAPA and the Amsterdam University. The Seminar, therefore, became an instance of communication with insular Caribbean and Latin America with whom, up to the present, had had no sufficient cultural and scientifical contacts. In relation to education, one of the problems, shared by both regions, is the existence of vernacular tongues (indigenous or creole) spoken by vast population sectors which have been left out of the school process as well as from all official channels of communication, favouring, thus, the exclusive use of dominant tongues.

The OREALC delegate presented two papers:

a) Linguistical-cultural policies in Latin American States: Unesco position.
b) A view of bilingual education in some of the Latin American countries: experiences and models.

Both papers reconstructed the political and ideological context in which Latin American vernacular tongues are registered and background information and the development of an assimilation policy of the minority ethnias of the Continent and the Unesco position vis the inequal situation of indigenous tongues and cultures, were outlined. Likewise, the principal indigenous education experiences carried out in some of the Latin American countries, were summarized, as well as different bilingual education models which inspired, in a great part, the so called transition and upkeeping models.

Field: Extrabudgetary projects

Line of Action: Development projects

Indigenous population literacy Project using distance education strategies (UNDP Preparatory assistance document, for study and approval)

A preparatory assistance document of the above mentioned Project, was elaborated during the month of September 1988, to be presented and approved by UNDP. The object of preparatory assistance is to outline the Literacy Project with indigenous populations using distance education strategies on the base of documented research and field work, as well as to draft its final version report. This activity, contemplating participation of two international and five national consultants, will be developed in a four-month period. Systematization of information actions as well as missions to countries of the so-called Indo America, have been foreseen. At the end of this task it is hoped to arrive to a prediagnosis of the literacy needs of Bolivia, Ecuador, Guatemala, Mexico and Peru. Likewise, it is hoped to esta-

blish the feasibility of the project and develop conditions for carrying it out.

The project is based on the following reasons: a) the critical state assumed by illiteracy in indigenous populations; b) the need to use new education models with these groups. Bilingual intercultural education proposes the revalorization of the native tongue and culture as the only cultural and socially valid manner of solving the national unity question; c) the day by day more relevant role played by mass media in education.

Furthermore, the preparatory assistance activity, as the project's execution itself, in case it meets the approval of UNDP, will be carried out by OREALC with REDALF support and making use of the experiences brought by the countries integrating the network.

Field: Extrabudgetary projects

Line of Action: Development projects

"Support to Literacy in El Salvador" Project (ELS/88/B/01/13, recently approved)

The Project's document was elaborated during the last 1988 four-month period.

The Project stands on the framework of a predominantly agricultural country and the most densely populated in Latin America and which suffers the effects of an economic crisis and furthermore, confronts an armed conflict with deep social repercusions. Further to the retreat of the BIP and of a high un-employment rate during these last years, El Salvador is characterized by an important population migration, particularly from the rural to the urban zones.

Illiteracy continues to be one of the most serious educational problems in the country together with a reduced growth of basic school enrolment and high repeating and dropout rates concentrated in the first grade.

The project is aimed at lending support to literacy actions carried out by Governmental and non-Governmental agencies with a total attention target of 61.000 people (53,500 illiterates and 7.500 new-readers). In particular, it will support the "Programa de Alfabetización Salvadoreño (PAS)" in the development of literacy actions destined to a population group of 30.000 illiterates; it will, as well, lend cooperation to areas such as training, educational material production, migration and promotion. It will, likewise, strengthen non-conventional literacy modalities and, in particular, will collaborate in the quality improvement and expansion of the "Programa de Alfabetización Radiofónica del Arzobispado de San Salvador", enabling it to cover a 23.500 literate and 7.500 new reader population. The project hopes to contribute to the promotion of women, who because of the economic and political crisis, have been compelled to take on themselves greater family responsibilities; in fact, it is women who hold the leadership of approximately 70% of family groups in the country.

Furthermore, the project will permit to carry out a training process for its two main components (PAS and the Programa de Alfabetizacion por Radio) (PAS and the Literacy Programme by Radio) through workshops for literacy workers and popular promoters.

Pro-Andes Project (UNICEF)

Unesco component proposal in literacy and adult education

During October 1988 a sub-project Unesco-OREALC in the literacy area by request of UNICEF and as component of the Pro-Andes Project of said Organization, was elaborated. Unesco's interest in participating in Pro-Andes is justified for a number of reasons:

- In the first place, by the multisectoral nature of the project, approaching the critical social problems of the Andean subregion in its entirety and, in particular, problems related to health, nutrition, water and sanitary conditions. The Project also brings together a study of the needs and the development actions. A coincidence of approach with Unesco is, also, observed, as Pro-Andes proposes the invitation and participation of the communities involved as well as the whole civil society.
- In the second place, by the project's target population, children and women of the Andean subregion, same population also defined in the Major Project in the field of Education in the Latin American and Caribbean Region in accordance with priority actions.
- The joint UNICEF-Unesco work would be made possible, consolidating a common work policy that has already been highly successful in other spheres, such as indigenous education and education for the woman.
- The Pro-Andes Project is directed to the Andean subregion, strategic area as it has been specially sensitive to the economic, social and political crisis, persisting simultaneously, a milenary cultural unity not free from loss of culture and fragmentation.
- On the other hand, participation in the Pro-Andes Project is amply justified given the priority character assumed by the eradication of illiteracy in the su-

bregion and, in particular, of illiteracy in indigenous populations. Added to this is the existing concern in Unesco, over indigenous population and its integration into formal education, ending in the creation of a model denominated bilingual intercultural education; likewise, the search for new educational modalities such as literacy and postliteracy using the media and multi-purpose education, destined to children and adults and based on the idea of supporting with education the rural community development. Consequently, the Unesco Subproject is essentially directed to two theoretical conceptions: bilingual intercultural education and multi-purpose education. The institutional framework of the Project is made up by REDALF and by the national experiences developed by related institutions.

Following these theoretical and operational principles, the Unesco Subproject proposes to support literacy efforts aimed at the indigenous groups of the Andean Subregion, as well as facilitate the indigenous communities' organization around this task. At the same time, collaborate in adult education programmes, particularly, in those destined to peasant women, training them in the organization and execution of community productive projects, and/or participate in altering nutritional habits experiences.

The Subproject pursues the following lines of action: a) Training of managerial personnel, educators and monitors of literacy programmes through national training and adult education workshops; b) literacy and post literacy teaching material production; c) development of literacy experimental projects, education of the peasant woman and adult basic education oriented by bilingual intercultural education models, and multi-purpose education.

The Project's work area includes Bolivia, Colombia, Ecuador, Peru and Venezuela.

Field: Extrabudgetary projects

Line of Action: Development projects

Unesco-AGFUND Project "Literacy and Postliteracy with audiovisual aids 522-PER-10-A-02 (in final stage of execution)

With the economic auspices of the "Programa del Golfo Arabe para las Organizaciones de Desarrollo de las Naciones Unidas" (Arabic Gulf Funding for United Nations Development Organizations) (AGFUND), and technical assistance of OREALC, this project is being carried out since 1987 in the Peruvian sierra area and its principal objective is to support present literacy efforts with indigenous and rural populations in deprived marginal situation, utilizing diverse audiovisual means in these educational processes.

The Project entered in 1988 in its final stage (ending date: April 1989).

An evaluation of the Project was carried out in 1988 in Peru. The Regional Adult Education Specialist attended as OREALC's representative; representatives of the Peruvian Government and technical directive personnel from the Project also attended.

Among the conclusions originated in the evaluation process, the following stand out:

- The Project has achieved its objectives in the training of technical personnel and literacy workers in charge of launching the programme and of the production of learning modules of bilingual inter-cultural literacy and postliteracy with audiovisual means. It should be emphasized that the Project opted for two differentiated methodological strategies:
  - Literacy in Spanish using video tapes as the principal means;
  - Literacy in Quechua, chosing as the best means, the educational textbooks or "cartillas" of reading-writing, mathematics instruments (didactic use of the "yupana") and the radio-recording use;
- The experimental character of the project has made possible the elaboration of material adequate to the Andean reality of the country, validated and applied in groupal contexts that can be pedagogically controlled. Though the Project is developed in the Andean Trapeze, in socially afflicted areas, no significative disruptions have been encountered due to the commitment of technicians, promoters and participants;
- One evident success in the project is the adequate treatment of cultural aspects making possible for indigenous communities to be identified with the materials produced. In this sense, the research carried out concerning the Quechua and its variants, Ayacucho-Chanka and Cusco-Collao and the rescue of the "yupana" as didactic means, stands out.
- The Project assigned a special role to the training of teams through an intense initial groupal training action destined to technicians and promoters.
- Open channel radio broadcasting for Spanish literacy programmes in Cusco, is a new modality overcoming

the objectives foreseen in the Project;

- The Project has, as well, produced an infra-structure for the employment of 19 video reproduction modules in field work which operates in five seats having as influence zones 19 communities belonging, in turn, to five departments of the Andean area: (Huancavélica, Sicuani, Cusco, Apurimac and Ayacucho).
- It seems necessary to systematize the evaluation and follow-up processes as well as intensify work in the postliteracy sphere; likewise, it is necessary to try to widen the influence space of the Project.

Among the recommendations, the following stand out:

- It is important to institutionalize literacy work with audio visual means.
- Generalize experience, applying reading-writing textbooks in other areas of the Andean Sierra and marginal-urban zones of Lima, as well as duplicate the open channel radio broadcasting of the city of Cusco, in other regions.
- Establish a co-ordination between national efforts linked directly or indirectly to literacy with audiovisual means;
- Systematize and disseminate this Project in the region, within the framework of International Literacy Year.
- Request Unesco for favour the Project's continuation, as well as horizontal co-operation actions in the field of literacy with audiovisual means.

REGIONAL NETWORK FOR THE TRAINING, INNOVATION AND RESEARCH IN THE FIELDS OF PLANNING AND ADMINISTRATION OF BASIC EDUCATION AND OF LITERACY PROGRAMMES –REPLAD–

I. TRAINING AND FURTHER TRAINING

Training projects in progress.

Activities of these distance education projects dedicated to local managing personnel of basic education, literacy and adult education programmes have continued according to schedule. National coordination offices have forwarded to OREALC reports on both the progress achieved by the projects under execution and of results of those which have finalized their activities. Ecuador is one of the former cases. It has initiated its II Promotion with 568 participants of 19 provinces of the country.

With a view to disseminating results of these activities and in order to enable future programmes to benefit from the experiences gathered, OREALC is elaborating a Consolidated Report summarizing what has been undertaken in this field in ten countries of the region (see "Publications" below).

Regional Seminar-Workshop for the Training of Trainers in Educational Planning and Administration

As part of REPLAD's strategic activities and at the request of the Bureau of the Intergovernmental Regional Committee of the Major Project, OREALC has been implementing a proposal aimed at qualitatively improving specific capacities of the technical teams responsible for educational planning and administration in the region.

The purpose of this proposal is to establish, in each country, teams capable of reconceptualizing and reordering –in keeping with new perspectives– the educational planning and management processes. In order to elaborate this proposal, OREALC has convened in three occasions specialists of member institutions of the REPLAD Network, who have proposed for this purpose an outline of a work plan which considers organization of a Seminar-Workshop of a regional nature, dedicated to personnel of those institutions or bodies responsible in each country for the training and further training of educational planners and administrators in Latin America.

Once this proposal was approved at the Meeting held in Santiago (Chile) from 29 August to 3 September 1988, agreement was reached as to the holding of the First Regional Seminar-Workshop, assigning OREALC the responsibility for its organization and coordination through the REPLAD Secretariat. This Seminar-Workshop will be held in Santiago (Chile) from 2 May to 9 June 1989 and will have the participation of approximately 30 specialists of REPLAD member institutions and bodies in 17 countries. Its curricular and methodological conception considers a design focused on a renovative perspective of the theories and practices of educational planning and management. To this end, due to its objectives, content and strategies, it is hoped that the Seminar-Workshop will generate a multiplier effect in the countries of the region. The theme to be considered revolves around four main Modules and will be developed in three moments or stages: the first, of a non-presential nature, considers activities prior to the holding of the Workshop; the second, of a presential nature, comprises six weeks of work; the third, also non-presential, will consider integration of the knowledge acquired in specific projects.

The holding of this Seminar-Workshop will have the financial support of the Government of Spain and the technical assistance of high level personnel of the various U.N. agencies –ECLAC, ILPES, CELADE, PREALC; of the International Institute for Educational Planning -IIEP– and of reknown research centres of the region. The actions, within which fall those of the Seminar-Workshop, are of a prospective nature and will be extended and multiplied in each country through national courses and workshops implemented by means of contributions of the participating institutions and technicians.

To date, OREALC in its capacity as coordinating body of these actions, has finalized the technical-curricular organization stage and is now undertaking activities to convoke participants whose designation will be made in February 1989.

II. HORIZONTAL COOPERATION AMONG REPLAD'S MEMBER INSTITUTIONS

Traineeships

Project Bra/86/002 (Brazil) Universidad de Monterrey –UM– (Mexico)

From 16 to 30 September, at the request of the U.N. Development Programme in Brazil, three Brazilian specialists visited Mexico to learn of the experiences carried out in the field of educational planning and administration in that country within the federal and state spheres. Activities of the specialists –María Das Gracas P. da Costa, Dinair de Souza Neves and Ines Bettoni– were organized and attended by the Coordination of the Research and Development Programme of the UM. The first phase focused on the national perspective and was in charge of the General Programming and Budget Department of the Federal District's Public Education Secretariat. During their traineeship, the specialists visited and learned of experiences of the Public Education Secretariat itself, of the National Institute of Adult Education, the National Council for Educational Development, the Teacher Training School and Universities. The programme of activities of the second phase of this traineeship was carried out in Monterrey, where trainees were able to appreciate the State bodies decentralization action, whose national projection they had already observed and, needless to say, to learn of the UM actions in support for the management of the education sector and, specifically, in research and training of personnel within the framework of REPLAD. These activities included various visits to local educational centres, dialogues and exchange of experiences with officials and teachers, technical meetings with executives and academic programmes and bodies concerned with education of the State of Nuevo León.

Comments of the visiting technicians on the benefits of this traineeship were lavish. It was deemed that experiences like this contribute to broaden the horizon of programmatic actions aimed at meeting the objectives of the Major Project in the region.

Brazilian authorities expressed their thanks to the Coordinator of the traineeship for the cordial attention provided to the teachers who benefitted from it, ratifying the positive aspect of the visit and committing their support for reciprocal activities.

III. DIDACTIC MATERIAL

Production of Modules on Didactic Material for Face-to-Face Training and Distance Education in Educational Research

This project –whose genesis was reported in prior OREALC publications– is at present in the stage of preparing the contents of each module, end of which has been programmed for May 1989. Once this stage is completed, the materials will be forwarded for their validation to the seven participating institutions: SENALEP in Bolivia; UNED in Costa Rica; INIDE in Peru; the Divisions of Adult Education in the Dominican Republic, Honduras and Panama.

During the validation phase which will last until December 1989, a micro-research developed by the above-mentioned institutions, will be included, making use of the modules in order to determine the usefulness and applicability of the material. At the end of this phase, the experiences gathered from a Workshop to be held at the Universidad de Monterrey, responsible for the coordination of this project, will be analysed. It is hoped in this way to obtain the necessary outputs to strengthen the contents, to continue later on production of the Modules. This final activity involves making available the material in its various forms: video-cassette, audio-cassettes, diskettes and printed manuals.

IV. STUDIES AND RESEARCH

Impact of the Literacy Programmes in Bolivia, Dominican Republic, Ecuador, Honduras and Panama

This research, on whose development issue number 13 of the Bulletin informed, has terminated its field activities and has submitted a synthesized report of its preliminary conclusions.

Designed with a view to learning of the effects of literacy programmes in the family, social, labour, civic and community participation fields of the literates, this research project responds to the demands posed by the Second Meeting of the REPLAD Network convened in San Jose. Costa Rica, in November 1986.

General coordination of the national projects as well as technical advice was entrusted to the "Programa de Investigación y Desarrollo –PIDE– (Research and Development Programme) of the Universidad de Monterrey (Mexico). The study programme, in addition to detecting the impact of literacy programmes on the life of literate individuals in the above-mentioned aspects, was aimed at learning the interests and expectations of adults who enrol in these programmes and at detecting achievements of both these aspects.

Objectives of the methodology concerned four aspects –family life, labour life, community life, civic life– directly connected with the work of the literates; data collection was carried out by means of questions made during a conversation between the researcher

and the person concerned; samples considered the following strata: illiterates (enrolled or not in the literacy programme), literates (new or old).

During May 1988, the coordinating body held a Workshop –attended by those responsible for the research in each country– in which the preliminary reports of the field work were presented, in addition to analysing in a plenary session the case of each country and providing technical advice with a view to optimizing the analysis through cross reference of some variables. As a conclusion, it was agreed that each country would elaborate a final report to be forwarded to OREALC headquarters.

The pre-analysis of the data of the preliminary reports enables appreciating in advance some similarity in trends and behaviour. Such is the case of the positive impact of the literacy programmes in relation to the "family life" component, particularly as concerns improvement of hygienic and feeding habits, as well as improved family relations and management of the family budget. The "labour life" and "civic life" components seem to reflect a very weak impact, which should be viewed with caution until a more thorough analysis is available. In relation to "community life", limited impact may be noted, with the exception of Bolivia–reflecting substantial participation in community work on the part of literates– which may rather be explained by the values proper of the population than as a result of literacy actions.

V. NATIONAL NETWORKS OF EXCHANGE AND COOPERATION IN EDUCATIONAL PLANNING AND ADMINISTRATION

Colombian Network REPLADCO

The Coordination of the Colombian Network of Exchange and Cooperation –REPLADCO– has forwarded to OREALC the document "Nivel de avance de las acciones emprendidas por la Universidad del Valle para implantar y consolidar la REPLAD en Colombia en 1988", (Level of progress of the actions carried out by the Universidad del Valle in order to implement and strengthen REPLAD in Colombia in 1988).

In this document reference is made to the following three actions:

"National Plan for Distance Training for Educational Planners and Administrators in Marginal Areas within the framework of REPLAD".

The Plan covers twelve territorial areas, eleven of which are considered most deprived socio-economic and cultural zones and which belong to three macro regions: Atlantic coast, Pacific coast and Amazonia.

In each of these areas, sectional basic teams were established to multiply training, integrated by personnel of the education secretariats, of pilot centres, of the "Servicio Nacional de Aprendizaje" (National Learning Service) and of the universities. These teams, each of which was provided with 4 copies of the training material package, had to study this material, elaborate a plan on how to multiply training in their areas and prepare its implementation.

Information points out that considered globally the Plan foresees serving nine territorial areas through basic teams formed by 49 staff who will conduct 37 courses with a coverage foreseen in 950 participants requiring 800 training packages and whose initiation has been programmed between June 1988 and January 1989.

It is expected to have available information on the state of progress of this valuable experience with a view to including it in the next edition of the Consolidated Report on distance education activities offered in the region.

Training Programme for the strengthening of educational planning and administration at the local level within REPLAD"

This activity, which has used three modules of the training material package, was offered to 30 staff members of the Education Secretariat of the Department of El Valle (supervisors, chiefs of district and directors of nuclei) and of the Experimental Pilot Centre of this Department. Actions were directed to: reinforcing the work of the participants through knowledge and application of new planning and administrative approaches, techniques and instruments; carrying out an innovative experience in the training of this personnel who, later on, may extend it throughout the Department; identifying elements to enable adjusting the contents, methodologies and strategies of the training material used to the educational reality of the Department.

Implementation foresees the establishment of a sectional interinstitutional team formed by the Technical Unit, the Experimental Pilot Centre of del Valle and the Universidad del Valle. Participants, who later on must act as multiplier agents of this experience, meet periodically with professionals of the Universidad del Valle –responsible for the teaching aspects– dedicating twelve hours to the study of each module which consider presentation and discussion of the themes, strengthening and orientations for the field work, as well as work on formative and summative evaluation.

"Seminar-Workshop on regional and local educational planning and administration within the framework of the Colombian REPLAD"

This activity was addressed to two regions of the Amazonia and the Colombian Orinoquia and had the attendance of 21 participants from Amazonas, Arauca, Caquetá, Casanare, Guainía, Guaviare, Meta, Putumayo and Vaupés, mainly concerned with educational supervision, planning and administration. The Seminar-Workshop was conceived as a training activity within the strategies foreseen by the Ministry of National Education and the Colombian Network, in order to implement the policy for administrative decentralization and to develop the fields of competence of the Network.

Objectives of the Seminar-Workshop aimed at: identifying and promoting technical mechanisms to enable organizing and reorganizing the educational planning offices; introducing mechanisms to optimize the technical capacity of administration in the formulation, execution and evaluation of educational projects; identifying processes for the articulation between regional level and local and institutional levels in educational planning and administration; introducing educational information and statistical criteria and mechanism for decision making in education.

The Seminar-Workshop's strategy considered the exposition of themes in charge of invited teachers, review of working documents and plenary sessions for the presentation and debate of the work submitted by the teams.

Conclusions of this Seminar-Workshop are being elaborated by the Coordination of the Colombia REPLAD and will be included in the next issue of this Bulletin.

VI. PUBLICATIONS

"Prospective studies on schooling, literacy and quality of education"

The Unesco Sub-Regional Office for Education in Central America and Panama (Unesco/CAP), has published a series entitled "Estudios Prospectivos sobre escolarización, alfabetización y calidad de la educación" (Prospective studies on schooling, literacy and quality of education)" in relation to these aspects in the six countries of that geographic sphere: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. This activity falls within the framework of the actions of the Major Project in the Field of Education, of the Unesco/UNDP Project –RLA/86/023 "Support to strategic actions on schooling, literacy and quality of education in Central America and Panama" and of Project Unesco/Spain 514/RLA/11, sub-project 1 "Strengthening of the educational planning and administration capacity in Central America and Panama".

The series comprises six issues –one for each country– initially presenting various socio-economic indicators, followed by demographic aspects to continue with educational data featuring the structure of the global system, the regular system, the formal and non-formal literacy and adult education services, conditions of administration and planning, outlines of the educational policy and financing of these services. To this overview presentation, follow trends, achievements and limitations of the effort carried out in relation to basic education and illiteracy. The last chapter includes the projection of the programmes specifically aimed at fulfilling the four priority objectives of the Major Project in the Field of Education. Each volume contains a fully detailed statistical annex with information on the aspects dealt with in the document, in addition to a specific and a general bibliography.

This work, in addition to meeting its explicit purpose "provide the countries of the sub-region with some elements to enable formulating educational strategies and policies, as well as information for the identification of international cooperation needs..." –constitutes a valuable contribution for those involved with education and a source of information which enables viewing in their global perspective the structural problems affecting education in the countries under consideration. From a different perspective, the approach to be used in presenting each report, constitutes a coherent and integrated methodological approximation of evident profit for macro educational analysis.

Drop-out and retention in literacy programmes

Bolivia, Dominican Republic, Honduras.

This publication consists of the Final Report of a research aimed at detecting factors associated with drop-out and retention in literacy programmes offered in the region. Its elaboration involved the cooperative effort of four member institutions of the REPLAD Network: The Universidad de Monterrey (Mexico), acting as coordinator, the Servicio Nacional de Alfabetización y Educación Popular –SENALEP– (National Literacy and Popular Education Service) (Bolivia), the Programa Especial de Educación Ciudadana –PEEC– (Special Programme for the Education of Citizens) (Dominican Republic) and the Plan Nacional de Alfabetización –PLANALFA– (National Literacy Plan (Honduras).

The study analyzed the situation of its endogenous variables given the possibility of acting on them when trying to attain efficiency of these factors; the perspective –an initial approximation to the problem– was not aimed at the comparison of the programmes under study but at emphasizing its exploratory nature trying to

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identify factors of incidence considering them under their peculiar circumstance and in the specific context to which they belonged. Additionally and due to the limited capacity for research available at the participating units, the work was accorded a training dimension, providing those who participated in the process the tools and technical resources making possible through praxis development of their responsibilities.

The study's methodology was designed by the coordinating institution after an analysis and approval on the part of the other participating bodies; its development was undertaken by the staff of the programmes involved, and data gathering was carried out by means of a semi-structured interview on the aspects considered. These referred to: i) the subject (sex, age, civil status, type of work, number of children, needs, expectations, motivations, distance from the literacy centre); ii) the programme (goals, achievements, materials, operation, methodology, time schedule, facilities, literacy worker, supervision, drop-out); iii) environment (link between the Centre and the community, between the group and the process, between the process and other projects; the person who dropped out according to those who finished the programme, family dynamics and its relation with drop-out).

In each country, the general objectives with slight differences, aimed at detecting factors which could be associated with the permanence or drop-out of participants in literacy programmes. The specific objectives somewhat varied from one country to another in relation to the conditions in which each one operated. Samples include a total of 420 individuals in Bolivia, 435 in the Dominican Republic, and 510 in Honduras; the sample segments considered urban and rural elements, men and women, those who remained in the programmes and those who dropped out.

Global conclusions mention as factors associated with retention:

- the advisability to designate literacy personnel who living in the same locality and being of the same sex and age as the participants, may keep up steady assistance;
- the perception of literates on the use and applicability of what is learned, linked to time schedules compatible with the literacy activities and their work and family responsibilities;
- easy understanding of the material used, adequate implementation of the working facilities and the link of the literacy programme with other projects in areas related to the participants' interests;
- needs and internal motivations of literates, supported by community participation and the commitment of the family group.

Among the factors influencing drop-out, mention may be made of:

- lack of family support;
- delay in making available the educational material;
- unemployment of participants.

The second part of the Report presents background information, results, analysis and conclusions corresponding to each country, including tools used in each case, and substantial statistical information. This work, of an unquestionable method, is expected to be used to improve the quality and efficiency of the literacy and adult education programmes, as it may enable gaining deeper knowledge of the behaviour of intervenient factors in their implementation.

Programme for distance training in educational planning, administration and supervision

Consolidated report on its implementation in ten Latin American countries

This work, in its first part, consolidates information on these programmes –under execution or finalized has been forwarded to OREALC by the national coordination bodies or by the Unesco Sub-Regional Office for Education in Central America and Panama (Unesco/CAP).

As concerns programmes offered in Costa Rica, Chile, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama and Uruguay, information is provided on the institutions responsible, participants, material used, tutorial management, the training process, follow-up and support activities and evaluation of the programmes. Several preliminary conclusions follow and finally, some suggestions and recommendations are provided, resulting from the analysis of the processed information.

The second part gives a summarized presentation of the information of each country and following the outline of the consolidated section, takes fourteen aspects to illustrate the scope of this effort in the countries under consideration.

In general lines –considering the preliminary nature that an analysis of activities which are mostly under execution must have– it may be possible to state that:

- these programmes are viewed, both by the participants and their administrators, as a valuable effort aimed at improving the management levels of the personnel responsible for administering basic education and adult education programmes;

- the substantial aspects of these programmes –their objectives, contents, methodological approach– are positively valued and distance education is perceived as the strategy that may turn out to be the valid response for meeting the massive needs for further training demanded by the education systems;
- the results achieved are satisfactory viewed from different perspectives: two programmes have finalized their planning stages and the remaining eight are progressing as expected. Quantitatively, these programmes involve the participation of 1.489 trainees who have received 1.160 printed packages of material and 350 sets of cassettes, as well as having had the support of 1.189 tutors and are coordinated by "ad hoc" administrations or by specialized bodies in this field;
- the programmatic configuration as well as the methodological treatment are homogeneous; evaluation and activities aim at the development of theoretical and practical capacities;
- the work of those directly responsible for the management should be emphasized for their efficiency and commitment.

TRANSFERS AND APPOINTMENTS

– After four years of having carried out duties –in a second stage– at the Unesco Regional Office for Education in Latin America and the Caribbean –OREALC–, Mr. Jesús M. Gurriarán has been transferred to the Organization's headquarters in Paris, where he has assumed functions in the Division for Educational Policies and Planning.
As a result of this designation, as of August 1988, Mr. Juan Casassus Gutiérrez, has assumed the functions of Specialist in Educational Planning and Administration at OREALC, where he will assist and coordinate the activities developed by the member institutions and bodies of the REPLAD Network in the region.
Mr. Casassus –whose academic curriculum registers titles and degrees granted by the Universidad Católica de Chile in Sociology, by the University of Notre Dame (USA) in philosophy and by the University of La Sorbonne (France) in Education and Economics of Education– was previously stationed at Unesco headquarters in Paris.

– Mr. Fabio Bustos Olarte, educator, with specialization in educational planning, who for two years was Director of CINTERPLAN, has been assigned as Coordinator of the Project for the Training of Trainers in Educational Planning and Administration, carried out within the framework of the REPLAD Network and whose first Seminar-Workshop will be held at the OREALC headquarters during 1989.

REGIONAL NETWORK FOR THE TRAINING, IN-SERVICE TRAINING AND FURTHER TRAINING OF EDUCATORS – PICPEMCE

Secondary Education in the XXI Century

A Regional Workshop on the *"Relevance of General Secondary Education on the needs of the region in the XXI Century"* was carried out at OREALC in Santiago de Chile.

The event, held from 21 to 25 November 1988 was attended by 16 specialists from eight countries of the region, who produced as one of the objectives of the consultation, a document with projections for the forthcoming decades to enable the governments, non-governmental organizations and international organizations to orient the general secondary education policies with a view to facing with more appropriate educational resources the challenges of the XXI century. Work was organized in three phases: the first, was focused on the elaboration of a general diagnosis of the current situation; the second, was concerned with the quantitative, qualitative and structural ideals to be attained by secondary education and which serve to guide future work; the third, undertook an analysis of the innovative strategies and plans useful for the implementation of essential adjustments.

Uruguay

Within the framework of the regional plan of action on the theme of the teaching of reading-writing at the basic level, a national workshop was convened in Montevideo, Uruguay, entitled "Reading-writing as a factor of school success or failure". The twenty five participants who met from 18 to 19 August, carried out diagnosis of the reading-writing teaching processes and the projection of teacher training and further training in this pedagogical field.

Publication: Educación y Marginalidad. (Education and marginality). PICPEMCE and DINED.

Dominican Republic

As part of the process to reinforce the PICPEMCE Network, the focal point of this country promoted several important actions:

- A course-workshop on research methodology addressed to managerial personnel and teachers of the teacher training schools as well as to technicians of the general department for the training, in-service training and further training of the national teaching personnel, outcome of which was the establishment of research commissions for the community.
- A course-workshop on active teaching of mathematics for eighth grade teachers of the city of Santo Domingo, mathematics teachers of teacher training schools and for technicians concerned with mathematics of the Education Secretariat's central headquarters.
- A French course and French didactics for seventh and eighth grade teachers.
- A course-workshop on the new system to evaluate basic education aimed at updating primary level managerial and teaching personnel of the country.
- Likewise, the first Dominican Congress on middle level biology teaching was convened.
- As concerns revision of the curricula, different meetings were carried out both to elaborate Spanish language programmes and to deepen reflection on the project for restructuring the middle level curriculum. Likewise, with a view to readjusting the physical education contents a draft decree was presented to the National Education Council for the legalization of its implementation.
- Implementation of a plan for the professionalization of the primary level teachers without a degree in Santo Domingo, Santiago, La Vega and San Francisco de Marcoris continues.

Publication: Instructivo para el curso taller sobre producción y uso de materiales didácticos con recursos del medio para primer y segundo grado de nivel primario. (Guideline for the course-workshop on production and use of didactic materials with local resources for the first and second grades of primary education). Author: State Secretariat for Education, Fine Arts and Culture.

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- *Educación en materia de nutrición y salud.* Final Report. Sub-regional Seminar-Workshop. Ciudad de Guatemala, Guatemala, 26-30 October 1987, (Scientific and technological education). Santiago, Chile, June 1988.

- *1990. Año Internacional de la Alfabetización.* Final Report. Consulta técnica regional. La Habana, Cuba, 21-25 March 1988. (REDALF). Santiago, Chile, August 1988.

- *Guía para el mejoramiento de la producción de materiales para la educación formal y no formal.* Gilberto Calvo (consultor). Experimental version. Methodological guides No. 6. (PICPEMCE). Santiago, Chile, August 1988.

- *PICPEMCE. Una red de redes.* Héctor Gutiérrez Salazar,. Santiago, Chile, September 1988.

- *Olimpiadas internacionales de física, 1967-1986.* (Scientific and technological education). Santiago, Chile, October 1988.

- *Situación educativa de América Latina y el Caribe. Proyecto Principal de Educación, 1980-1985.* (SIRI). Santiago, Chile, October 1988.

- *Módulo educacional sobre problemas ambientales en las ciudades.* (Environmental Education Series No. 4). Santiago, Chile, October 1988.

- *Materiales de apoyo a la formación docente en educación bilingüe intercultural.* (Serie). Massimo Amadio y Anna Lucía D'Emilio (Comp.). Santiago, Chile, December 1988.

  - No. 1. Cultura, Emanuele Amodio.

  - No. 2. Lengua, Luis Enrique López.

  - No. 3. Educación bilingüe, Madeleine Zúñiga Castillo.

  - No. 4. Escuela, Comunidad y Currículo, Luis O. Montaluisa Chasiquiza.

  - No. 5. Alfabetización, Jorge Rivera Pizarro.

- *El enfoque modular en la enseñanza técnica.* Santiago, Chile, December 1988.

1990: THE INTERNATIONAL YEAR OF LITERACY

The United Nations Assembly proclaimed 1990 as the International Year of Literacy and invited Unesco to assume the leading organization role in charge of its preparation and celebration.

The illiteracy is widely admitted as one of the main worldwide problemmes. In 1985, there was approximately 889 million of adult illiterate people in the world (older than 15 years); more than a fourth part (27%) of the adult population. There also was more than 100 million of children in schooling age (6-11 years) that were not enrolled in the schools. These children run the risk to become the adult illiterate people of the XXI century.

The majority of the adult illiterates are women and more than 98% of the illiterates live in developing countries. This illiterate population constitutes a serious obstacle for the development and modernization of many developing countries. It affects the worker's productivity, it makes difficult the health services' organization, hygiene and other public services, it makes difficult the creation of political structures based on popular vote and, in one way or the other, it hinders individual and society's progress.

The industrialized countries also find themselves affected. In recent years those who thought to have solved the illiterate problem more than 50 years ago, have now discovered a derived phenomenon: the functional illiteracy. The functional illiterate can habitually read, but in a level that is not sufficient to find a job in a modern economy or to effectively participate in an everyday more complex society.

The proposal of UNESCO for the celebration of an International Year of Literacy is related to the elaboration of a Plan of Action in order to help the Member States of all the world regions to eradicate the illiteracy for the year 2000.

In order to implement such Plan of Action, UNESCO stresses that this task cannot be carried out unless it exists the necessary political will and the commitment in the Member States to create an extensive International Solidarity movement in order to guarantee the governmental and non governmental organizations active participation.

The objectives for the International Year of Literacy approved by the Unesco General Conference in the 24th Session held in 1987 are:

- *to intensify the action of the Member States governments affected by illiteracy or by the functional illiteracy in order to get rid of these problems, in particular by means of education in rural areas and in urban communities in favour of women and girls, and in communities and groups affected by problems or special educational needs;*
- *to increase the awareness from the public opinion, concerning the scope, the nature and the illiteracy's consequences, the same as the ways and conditions to fight it. In particular, an effort in order to alert the public opinion regarding the high illiteracy percentage of adult women and the outcomes for the well being of their children, the lower schooling percentage in girls than in boys, and the relation between illiteracy on one hand and poverty, under development and economic, social and cultural exclusion, on the other hand;*
- *to increment the popular participation –inside and outside of the countries– in an effort to struggle the illiteracy particularly by means of governmental and non governmental organizations, volunteering associations and community groups;*
- *to increase the cooperation and solidarity among the Member States in the fight against illiteracy;*
- *to increase the cooperation within the system of United Nations and, in general amongst all governmental and non governmental organizations in the fight against illiteracy.*
- *to benefit from the International Year of Literacy to start the Plan of Action in order to eradicate illiteracy towards the year 2000 and to express suggestions of vital importance for the literacy progress related with the decrease of school dropout and to the accomplishment of post-literacy programmes that prevent a recession to illiteracy.*

OREALC
PUBLICATIONS

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